CE

dirna Bergstrom
Air conditioning for vehicles
Climate Control Systems

bycool
green line

INTEGRAL POWER

Instrucciones de Montaje
Mounting Instructions
Instructions de Montage
Montageanweisungen
Istruzioni di Montaggio
Kurulum Talimatlari

ES	Spanish
EN	English
FR	French
GE	German
IT	Italian
TK	Turkish

AENOR ER Calidad en Automoción UNE-ISO/TS 16949
AENOR ER Empresa Registrada ER-0022/1/99
IQNet CERTIFIED QUALITY SYSTEM

F-4218 rev.01

0911860000
0911980000

Recomendaciones Para el montaje

- Antes de iniciar el montaje leer las instrucciones y seguirlas durante el proceso de instalacion.
- Usar las herramientas adecuadas para cada operación.

Electricidad

- Desconectar la llave de contacto.
- Desconectar la batería antes de empezar el montaje.
- Asegurar el conexionado de los componentes eléctricos, verificando su correcto encaje.

⚠ Atención

Al instalar el equipo de aire acondicionado en el techo se debe proteger la parte superior de la cabina con un paño ó manta protectora para evitar posibles arañazos. Al instalar **Integral Power** en el techo hay que tener en cuenta que, normalmente, las cabinas que vienen provistas de escotilla, tienen una estructura suficiente para soportar el peso del equipo. Sin embargo, cuando no ocurra así y sea necesario realizar corte en el techo ó incluso si en el caso de llevar escotilla el material no es lo suficientemente resistente (caso de techo de fibra, plástico, etc...) es el instalador el que debe decidir, **bajo su responsabilidad**, sobre la necesidad de reforzar el techo para evitar posibles deformaciones, roturas, entradas de agua, etc... habilitando los medios para que esto no ocurra.

Herramientas

- Juego de Llaves Torx
- Juego de Llaves Allen
- Llave fija 10
- Tijeras
- Flexómetro
- Juego de carraca - boca Ø 10
- Destornillador estrella / plano
- Sierra circular Ø 35
- Taladro - boca Ø 7
- Sierra vaivén

Documentación incluída

Instrucciones de montaje	091186-091198
Manual del usuario	220.AA2.1001
Diagnosis de averías	220.AA2.1002
Garantía	220.AA1.0010

⚠ Advertencias

⚠ El personal instalador debe poseer una formación suficiente en Aire Acondicionado de vehículos.

⚠ **dirna Bergstrom, s.l.** queda exenta de responsabilidad si se producen averías que procedan de una inadecuada manipulación ó instalación del equipo, ó por modificaciones y sustituciones efectuadas sin nuestra expresa autorización por escrito.

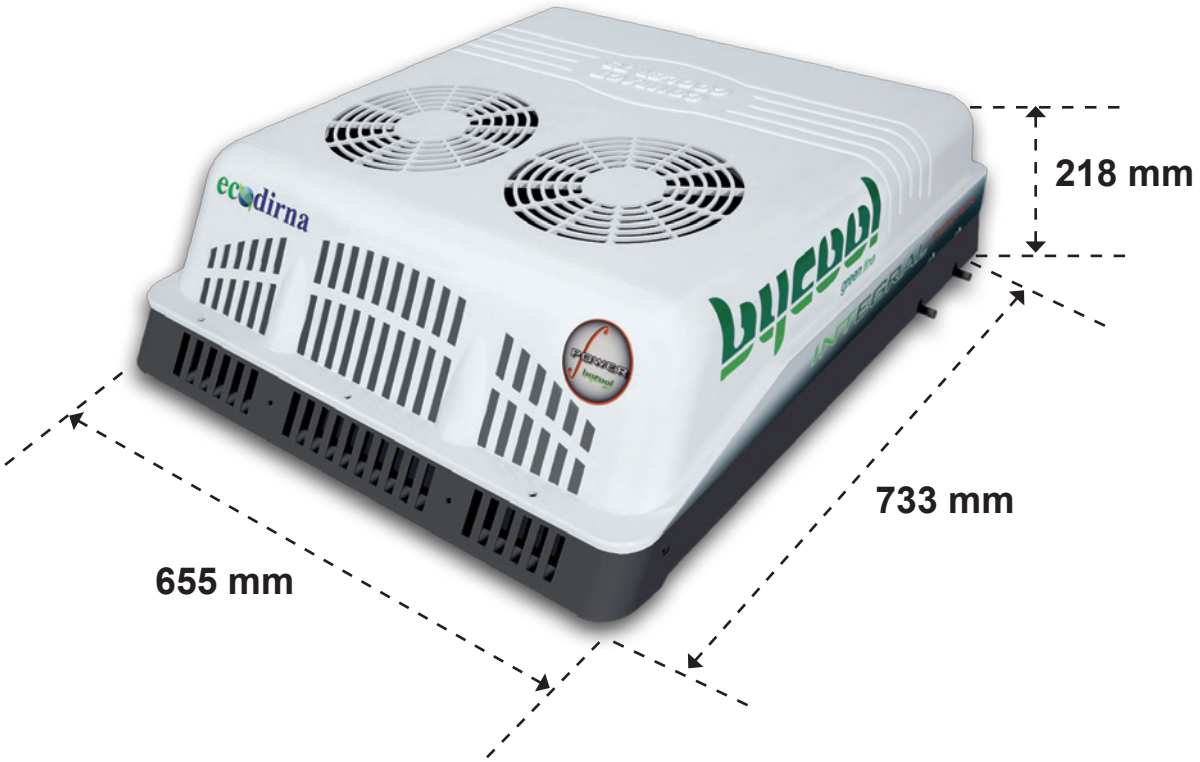
⚠ **Equipo precargado con gas refrigerante R-134a, (I.P. 12 V. 500 g. - I.P. 24 V 500 g) (No manipular el circuito de gas refrigerante).**

⚠ Véase **procedimiento de garantía** del producto incluido en **Diagnosis de Averías**.

⚠ Véase **Manual de Usuario** del equipo para el correcto funcionamiento del mando a distancia y del panel de control.

⚠ Al finalizar la instalación se debe entregar al usuario: **Manual del Usuario**, **Garantía** y **Diagnosis de averías**.

INTEGRAL POWER



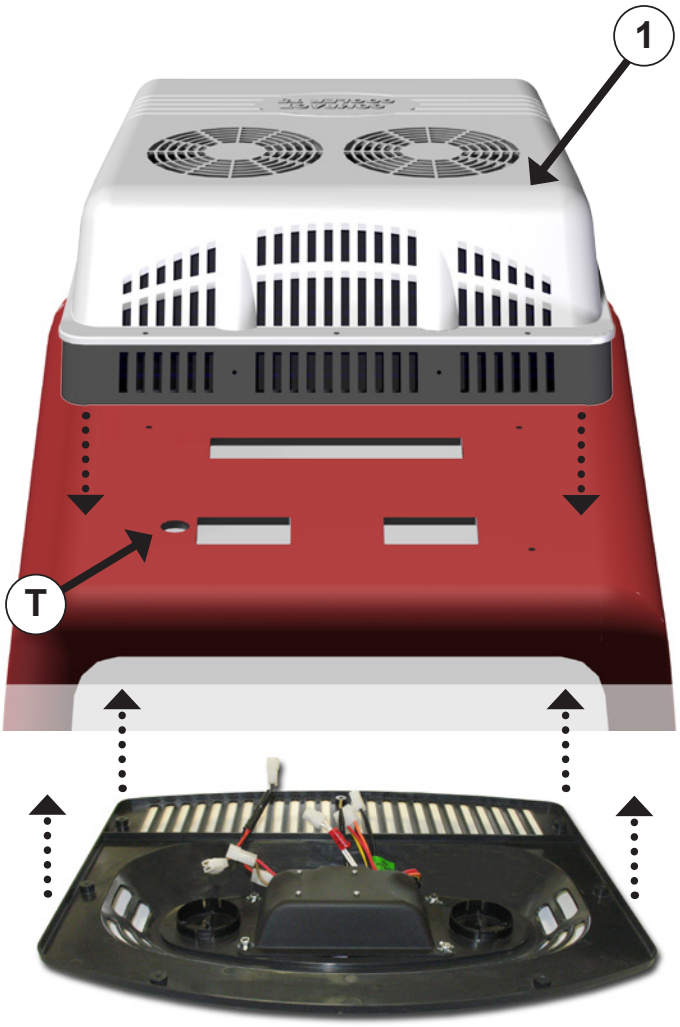
DATOS TÉCNICOS				
Potencia frigorífica	Tensión de alimentación	Intensidad absorbida	Caudal de aire	Peso total
3200 w	**12V / 24V**	**30A / 45A ****	**700 m³/h**	**43,5 Kg**

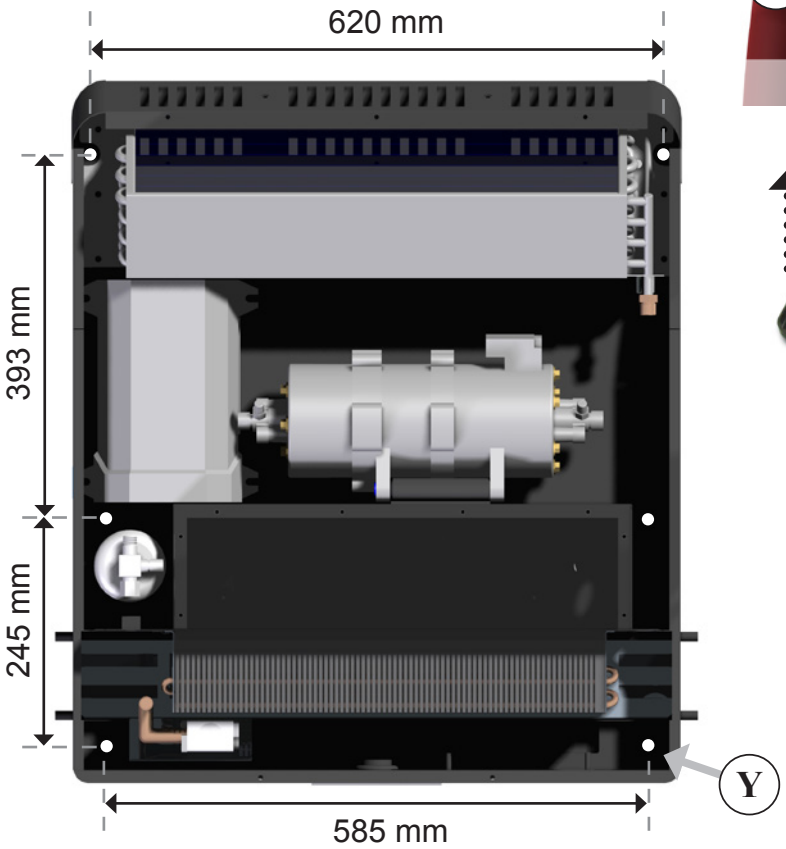
(**) Según norma JIS, condiciones de ensayo: temperatura exterior 35 ºC, temperatura retorno 27 ºC.
(**) Consumos extraídos de prueba con temperatura exterior entre 30 ºC y 42 ºC.

1 Posicionar el equipo **Integral Power** sobre el techo, teniendo en cuenta que la posición final debe corresponder con el frente suministrado (0911860035) procurando que quede sobre superficie plana.

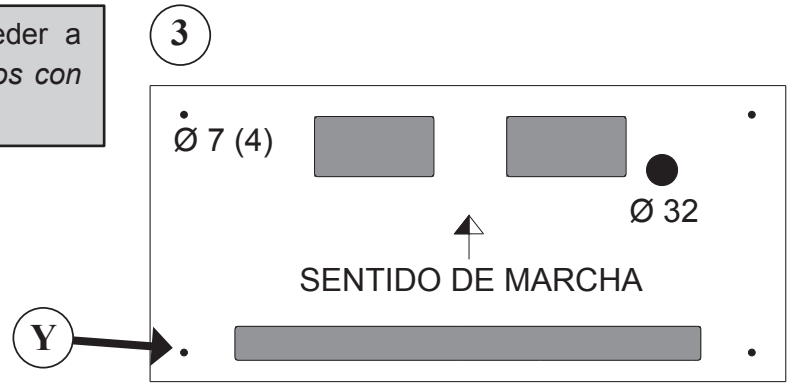
2 Una vez definida la posición, quitar la carcasa y marcar (6) taladros **(Y)** seguidamente hacer coincidir los (4) taladros de la plantilla con (4) taladros traseros del techo (figura 3).

Tener en cuenta la flecha que indica el sentido de la marcha.



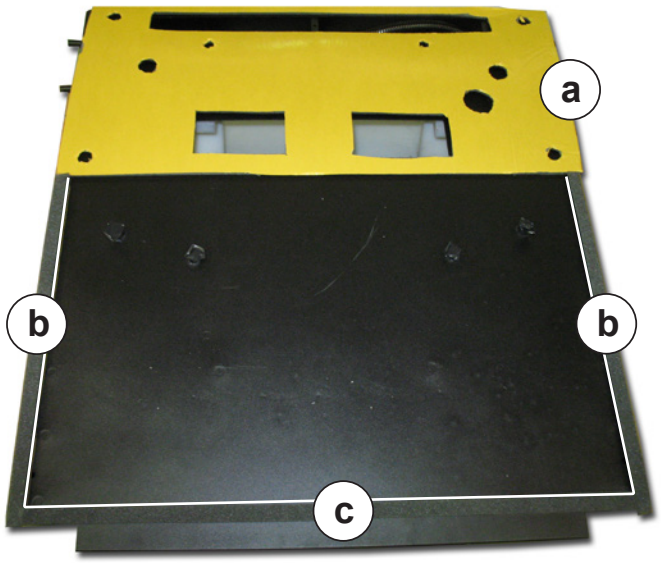


3 Marcar los cortes y taladros y proceder a realizarlos (*proteger los cantos cortados con antioxidante*).



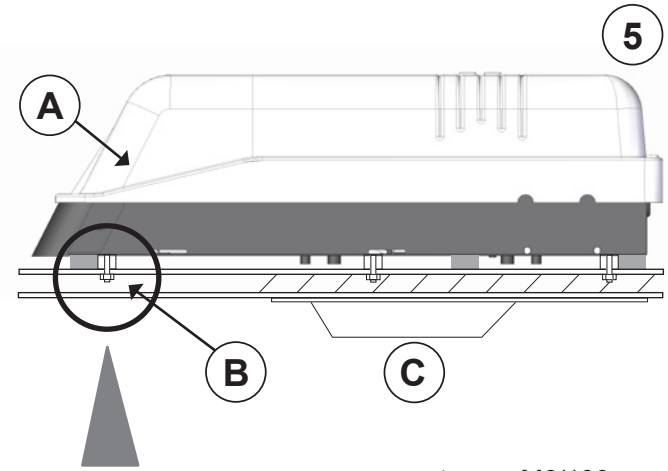
4 Colocar junta cierre, juntas laterales y junta frontal en la parte interior del compacto como se muestra.

a	Junta cierre
b	Juntas laterales
c	Junta frontal

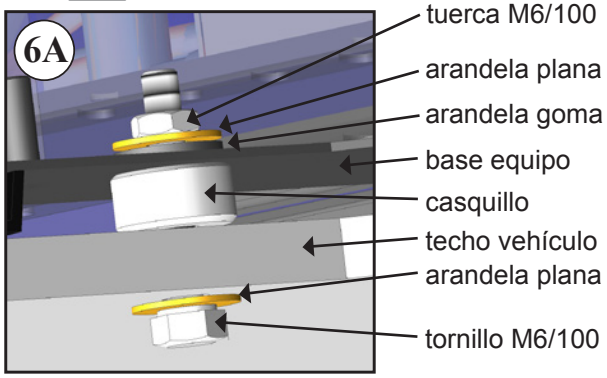


5 Pasar cableado por el traladro (T) realizado en el techo para ello (figura 1). Colocar **Integral Power (A)** con (6) casquillos de 13 mm, arandelas de goma y (6) tornillos M6/100x40 **(B)** y tuercas M6/100.

⚠ **Importante: Asegurar estanqueidad del conjunto al techo para impedir posibles entradas de agua.**

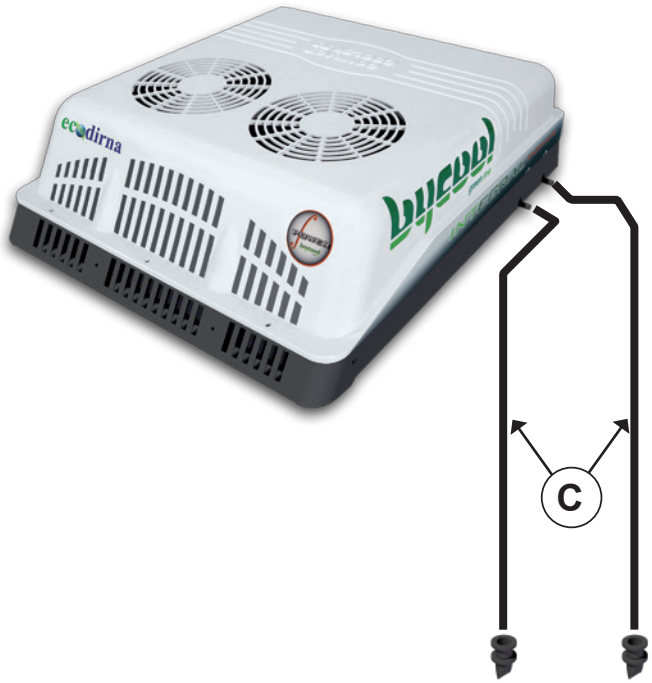


6A Colocar arandelas de goma para evitar paso de agua.



6B Sellar taladros con silicona.

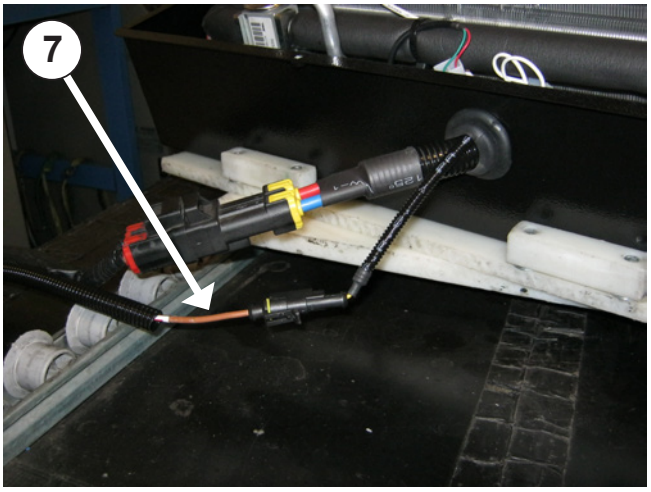
6C	Colocar tubo PVC según necesidad de longitud.

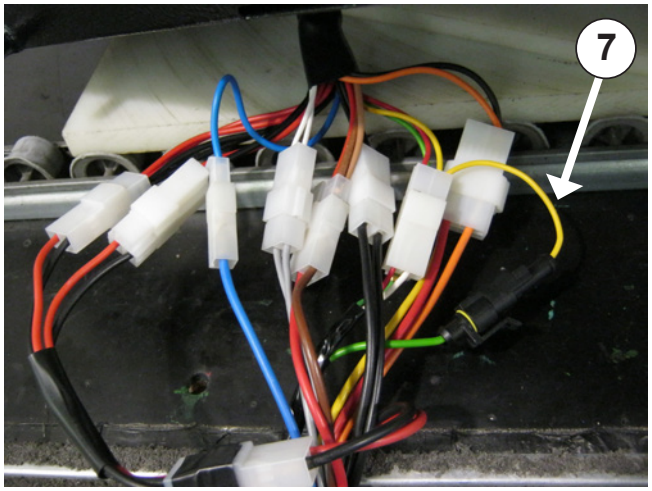


Cableado de excitación

⚠	**Atención:** El cableado de excitación se instalará en todos los vehículos excepto en camiones.

7	Colocar cableado de excitación por el interior ó por el exterior del vehículo según convenga.



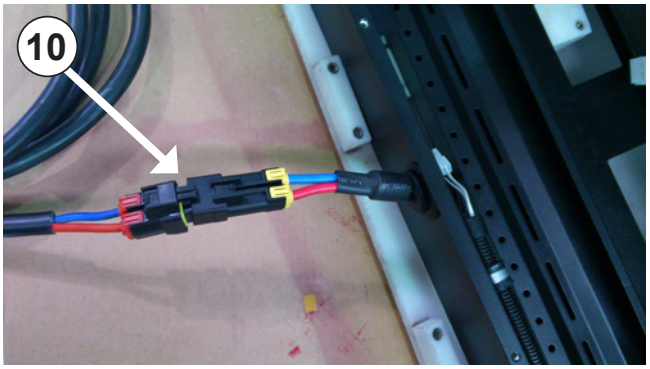


8 Conectar el otro extremo en posición **(+) sólo con motor arrancado.**

9 Conectar cableado al frente (Punto C página 5) y fijar frente con tornillos suministrados.

⚠ **Importante: Antes de montar el frente, colocar el interruptor en la posición correcta para cada vehículo.**

10 Conectar cable de alimentación superior en la parte trasera del equipo.

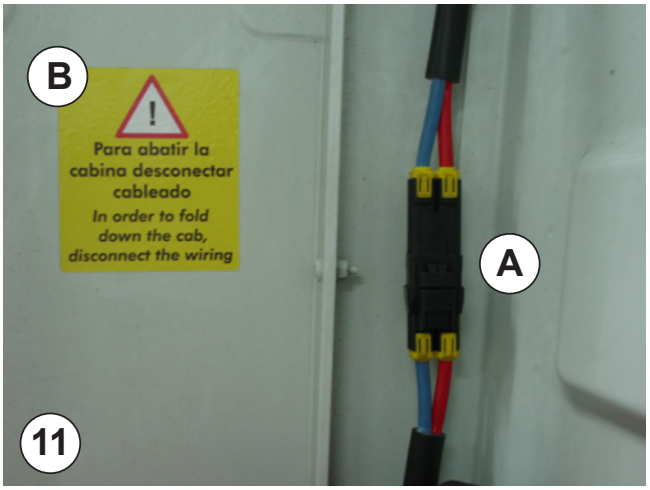


11 Conectar cable de alimentación inferior **(A)** llevándolo a batería y poner adhesivos de peligro de unión de cableado en lugar visible **(B)**.

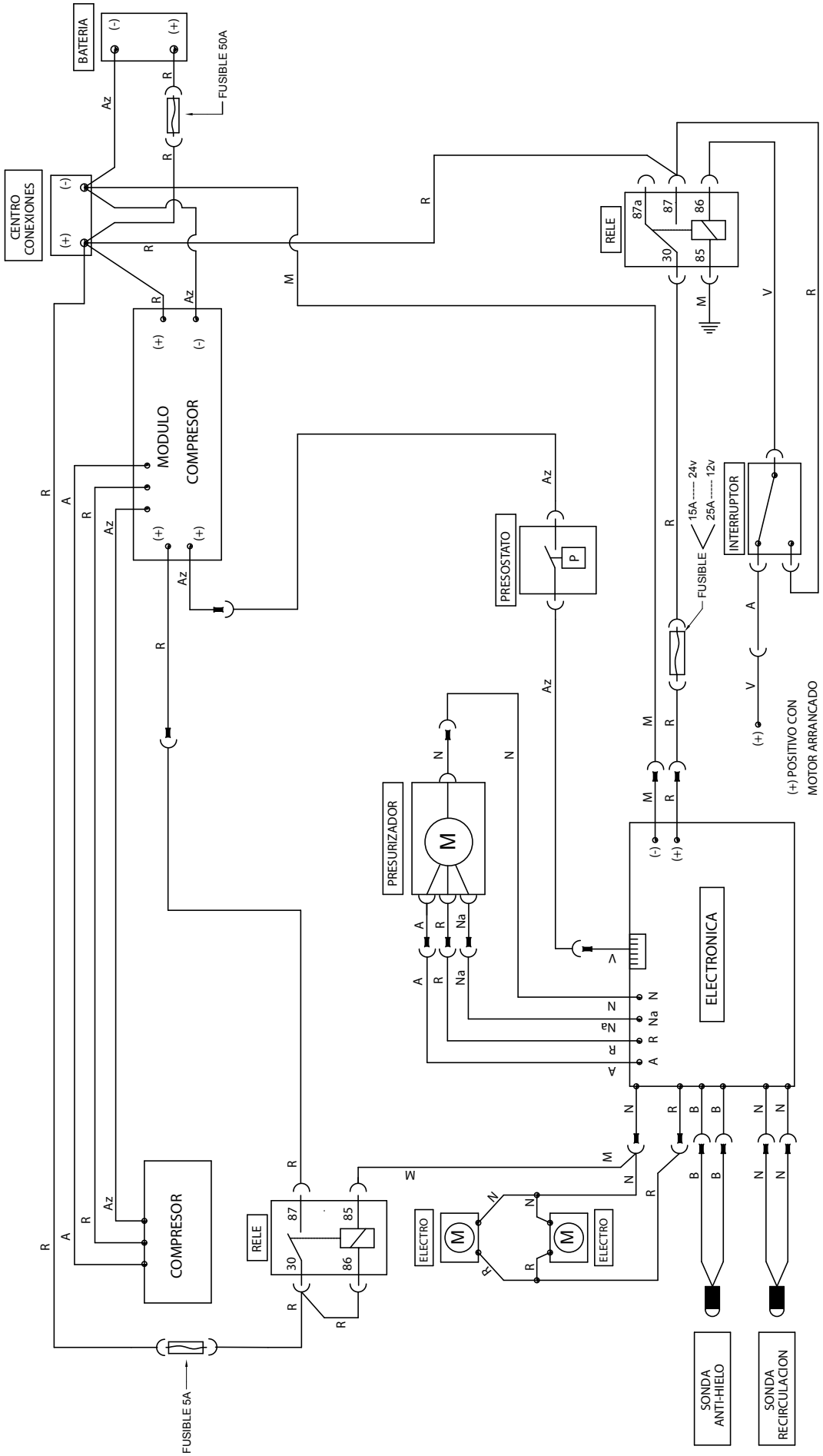
⚠ **Importante:** Al conectar los cableados, dejar la distancia adecuada, para evitar su rotura por los movimientos del vehículo.

⚠ **Importante:** Debido al complejo sistema de regulación electrónica del equipo, la toma de corriente debe realizarse directamente a la batería del vehículo (si no fuese posible consultar con **dirna Bergstrom, s.l.**).

⚠ **Importante:** Para la puesta en marcha consultar el **manual de usuario (220AA21001)**.



Esquema eléctrico



Assembly Recommendations

- Before starting assembly, please read instructions and follow them during installation process.
- Use the adequate tools for each operation.

Electricity

- Disconnect ignition key.
- Disconnect battery before starting assembly.
- Make sure electric components are securely connected, checking their correct fitting.

⚠ Warning

When installing air conditioning equipment on roof, the upper cabin part must be protected with a cloth or a protective blanket to avoid possible scratches. When installing **Integral Power** on roof, take into account that, normally, cabins equipped with a hatch have a strong enough structure to hold equipment weight. However, if it is not the case and it is necessary to carry out a cut in the roof or, although it has a hatch, the material is not resistant enough (*if roof is made of fibre, plastic, etc...*), it is the installer who will have to decide, under his responsibility, if it is necessary to reinforce the roof to avoid possible deformations, breaks, water entries, etc., habilitating the means required to stop it from occurring.

Tools

Torx wrenches set
Allen wrenches set
Open-jawed spanner 10
Scissors
Flexo-meter
Ø10 Wrench
Phillips screwdriver / screwdriver
Ø35 Circular saw
Ø7 Drill
Sabre saw

Documentation included	
Mounting instructions	091186-091198
User's guide	220.AA2.1001
Troubleshooting	220.AA2.1002
Warranty	220.AA1.0010

⚠ Warnings

⚠ The installing personnel must have a sufficient training in vehicles air conditioning.

⚠ **dirna Bergstrom, s.l.** shall not be responsible for breakdowns or damages coming from an inadequate handling or installation of the equipment or from modifications and substitutions carried out without our express and written authorisation.

⚠ **Unit pre-loaded with refrigerant gas R-134a, (I.P. 12 V. 500 g. - I.P. 24 V 500 g) (Do not touch the refrigerant gas circuit).**

⚠ Please see product **warranty procedure** included in **Troubleshooting**.

⚠ Please see equipment **User's Guide** for its correct functioning of the remote control and control panel.

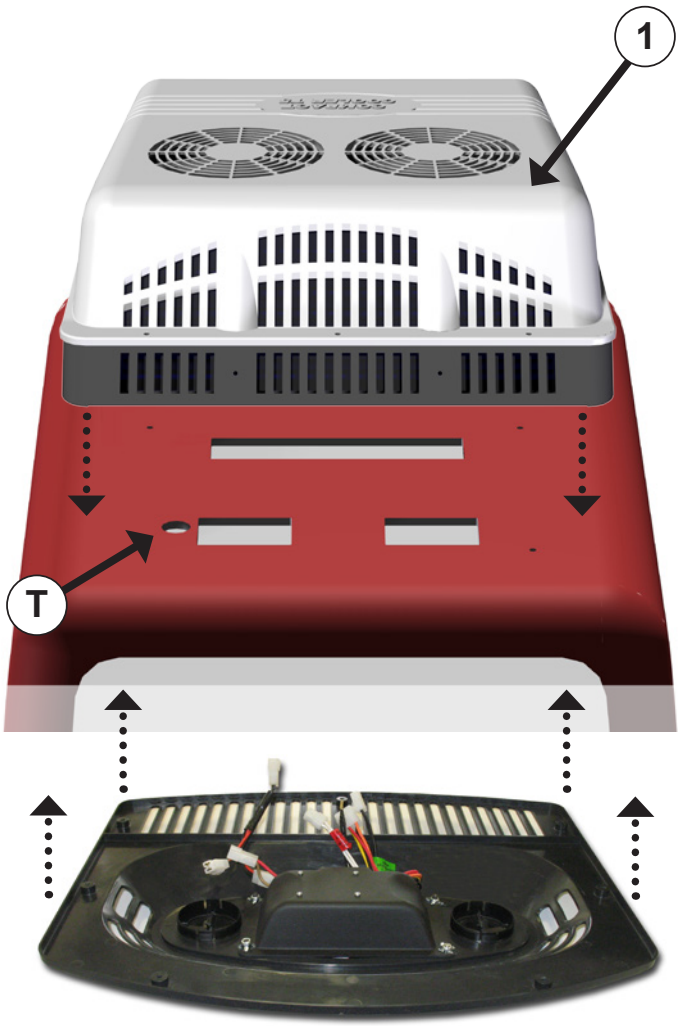
⚠ Once installation is finished, the following documents must be handed over to the user: **User's Guide**, **Warranty** and **Troubleshooting.**

INTEGRAL POWER

TECHNICAL DETAILS				
Refrigerating power	Working voltage	Absorbed intensity	Airflow	Total weight
3200 w	**12V / 24V**	**30A / 45A ****	**700 m³/h**	**43,5 Kg**

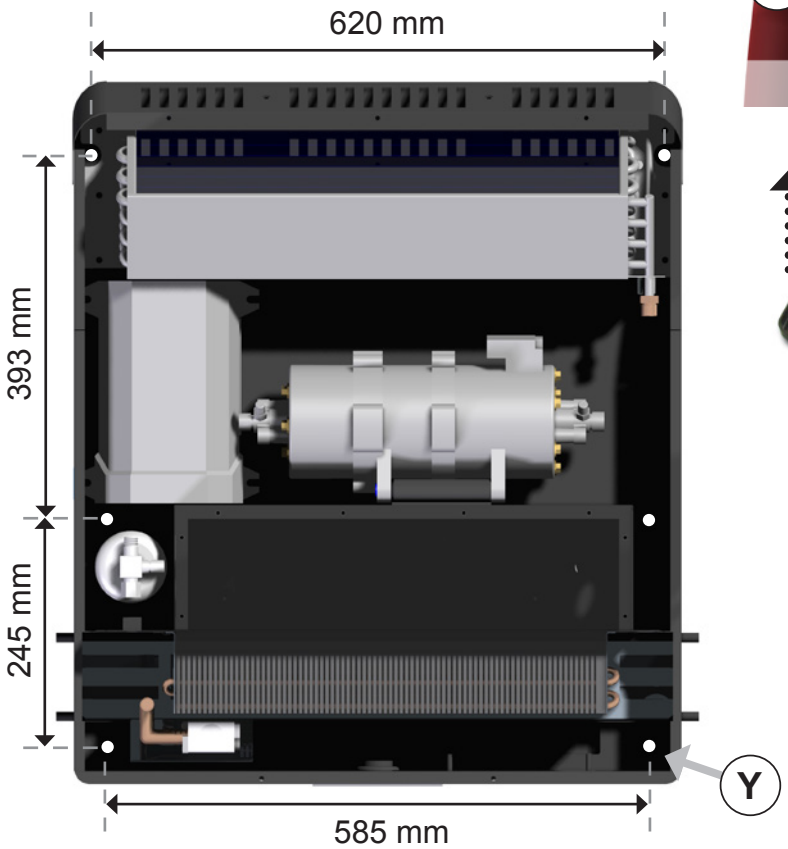
(**) In accordance with JIS standard, test conditions: outside temperature 35ºC, return temperature 27ºC.
(**) Consumption as found in test with outside temperature between 30°C and 42°C.

1 Position the **Integral Power** unit on the roof, taking into account that the final position must correspond to the front supplied (0911860035), ensuring it is on a flat surface.

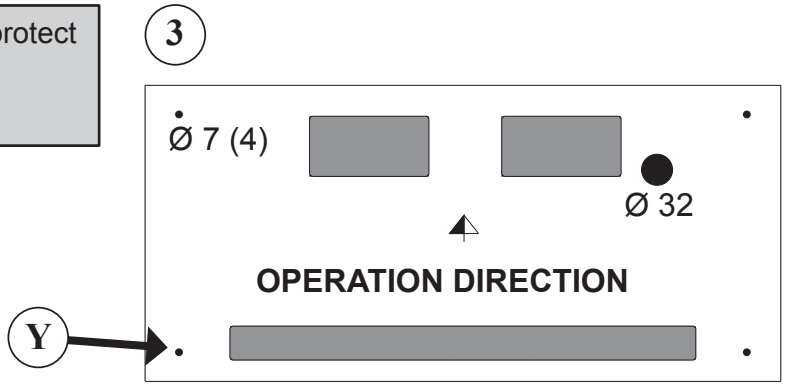


2 Once the position is defined, remove the case and mark (6) boreholes (**Y**), then align the (4) template boreholes with the (4) rear boreholes in the roof (figure 3).

Note the arrow indicating the operation direction.

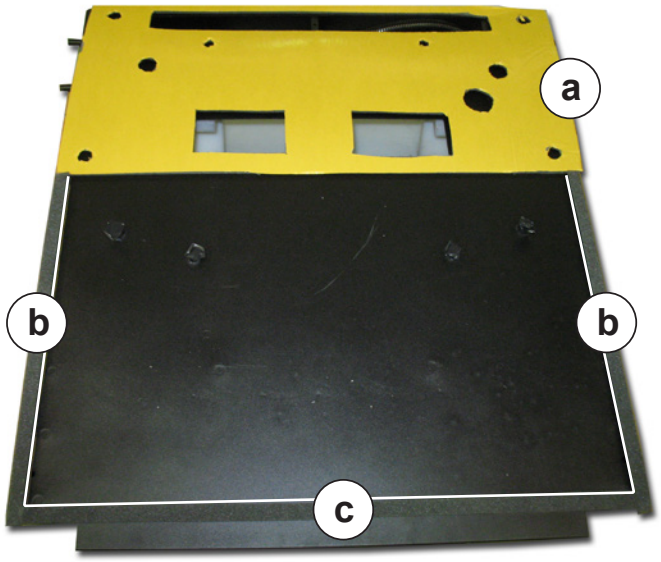


3 Mark and make the cuts and boreholes (protect the sharp edges with anti-oxidant).



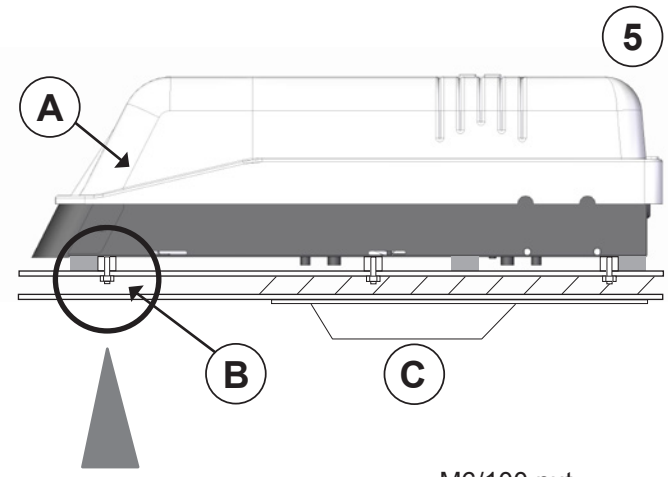
4 Position the seal joint, side seals and front seal inside the compact as shown.

a	Seal joint
b	Side seals
c	Front seal

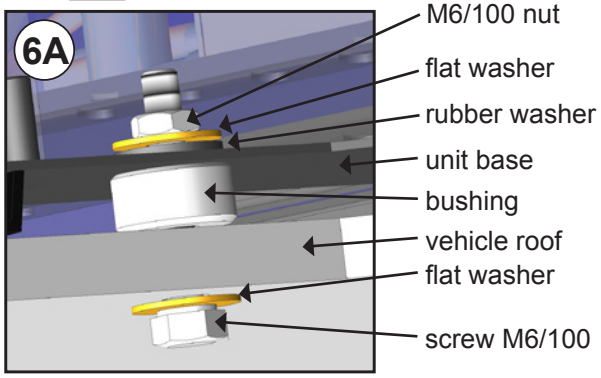


5 Pass the cabling through the borehole (T) made for this purpose in the roof (figure 1). Position **Integral Power** (**A**) with (6) 13 mm pieces of bushing, rubber washers and (6) M6/100x40 screws (**B**) and nuts M6/100.

⚠ **Important: Ensure sealtightness between the unit and the ceiling in order to prevent any water coming in.**

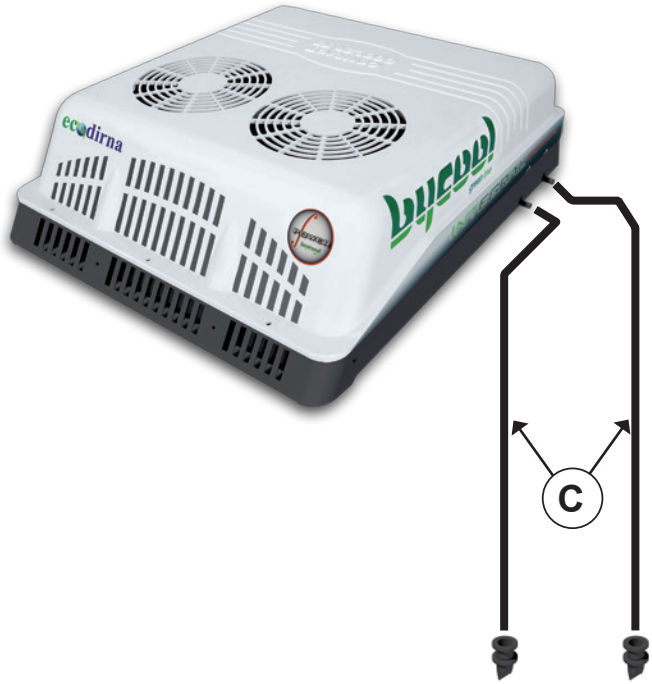


6A Insert rubber washers to prevent water passage.



6B Seal the boreholes with silicone.

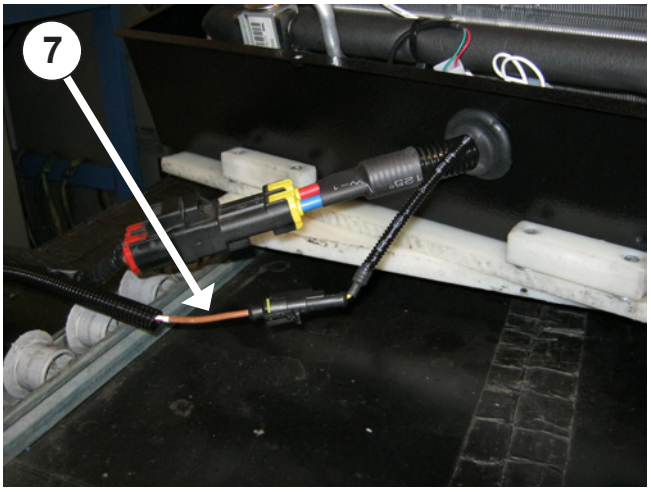
6C Place PVC pipe in the length required.

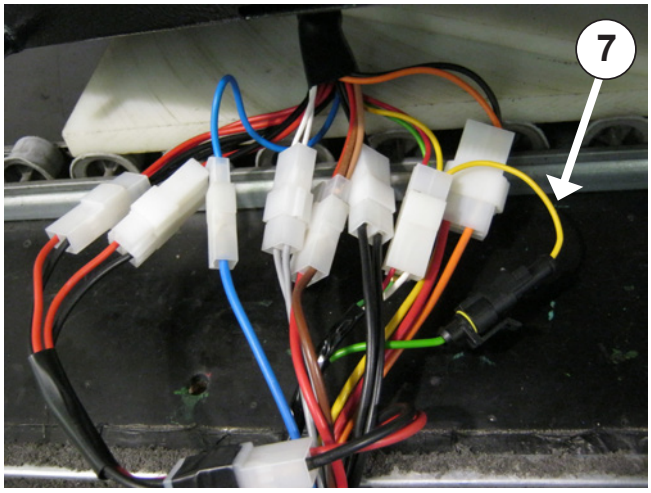


Excitation wiring

Attention: Wiring excitation install on all vehicles except trucks.

7 Position the excitation wiring inside or outside the vehicle as appropriate.



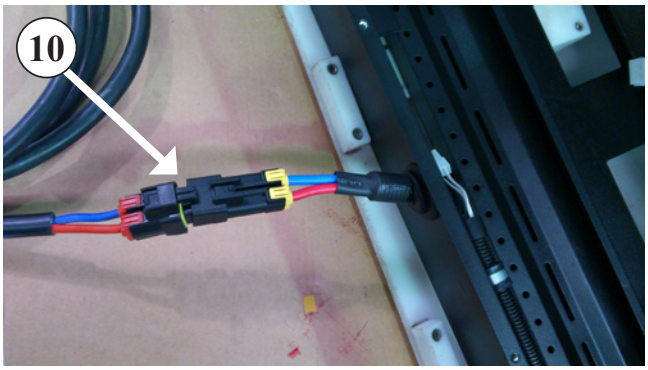


8 Connect the other end in **(+) position with the engine running.**

9 Connect the wiring to the front (Point C page 12) and secure the front with the screws supplied.

⚠ **Important: Before mounting the front, position the circuit breaker in the correct position for each vehicle.**

10 Connect the upper power cable in the rear of the unit.

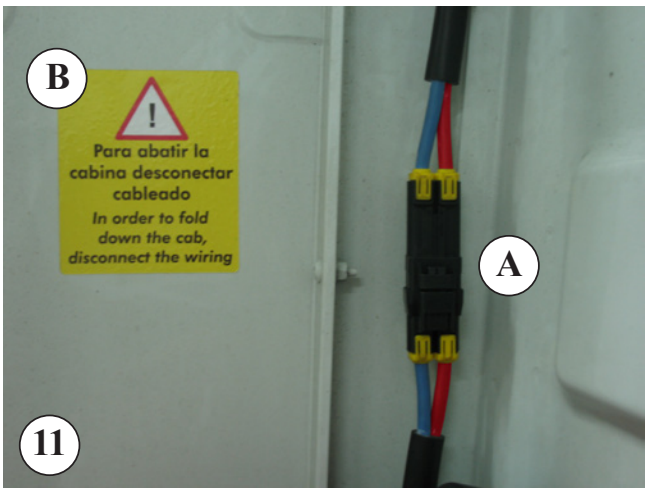


11 Connect the lower power cable (**A**) to the battery and place cable joint hazard stickers in a visible place (**B**).

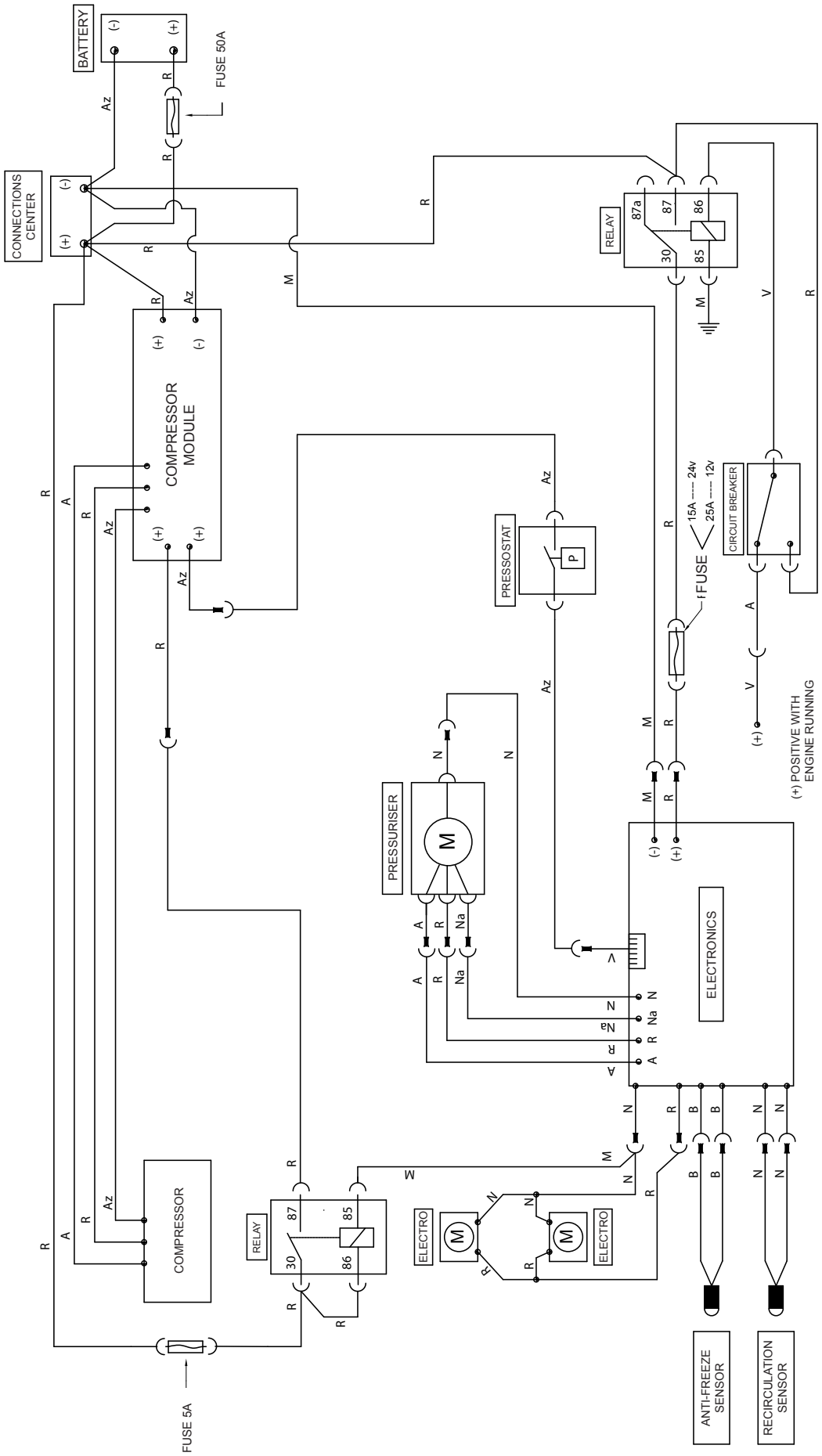
⚠ **Important:** When connecting the cables, leave suitable distance in order to prevent breakage when the vehicle moves.

⚠ **Important:** Given the complex electronic regulation system in the unit, the current connection must be made directly to the vehicle's battery (if this is not possible, contact dirna Bergstrom, s.l.).

⚠ **Important:** Check the **user manual (220AA21001)** before starting up.



Electric wiring



Recommendations Pour Le Montage

- Avant de commencer le montage de l'appareil, prière de lire les instructions et de les suivre attentivement.
- Utiliser les outils convenant à chaque opération.

Electricity

- Déconnecter la clé de contact.
- Déconnecter la batterie avant de commencer le montage.
- Vérifier le câblage des composants électriques et leur correcte installation.

⚠ Attention

Lors de l'installation de l'appareil d'air conditionné sur le toit, il faudra protéger la partie supérieure de la cabine avec un linge ou une couverture de protection afin d'éviter les éventuelles égratignures. Durant l'installation du **Integral Power**, tenir compte du fait que normalement les cabines pourvues d'écoutille possède une structure suffisamment solide pour supporter le poids de l´appareil. Cependant, si ce n'est pas le cas et qu'il est nécessaire de découper le toit ou même si disposant d'écoutille, la structure n'est pas suffisamment rigide (si elle était en fibre, plastique, etc.) il appartiendra à l'installateur de décider s'il faut renforcer le toit pour éviter toute déformation, rupture ou voie d'eau, etc., et prendre les mesures nécessaires à cet effet.

Outils

Jeu de clés Torx
Jeu de clés Allen
Clé fixe 10
Ciseaux
Mètre
Jeu de clés à cliquet - mèche Ø 10
Tournevis étoile / tournevis
Scie circulaire Ø 35
Perceuse - mèche Ø 7
Scie sauteuse

Documentation included	
Instructions de montage	091186-091198
Guide de l'utilisateur	220.AA2.1001
Solution des problèmes	220.AA2.1002
Garantie	220.AA1.0010

⚠ Garantie

⚠ L'installateur devra posséder la formation pertinente en air conditionné sur véhicules.

⚠ **dirna Bergstrom, s.l.**, ne sera pas responsable des dommages ou des bris dérivés d'une installation ou d'une manipulation incorrecte ni des modifications réalisées sans autorisation expresse par écrit.

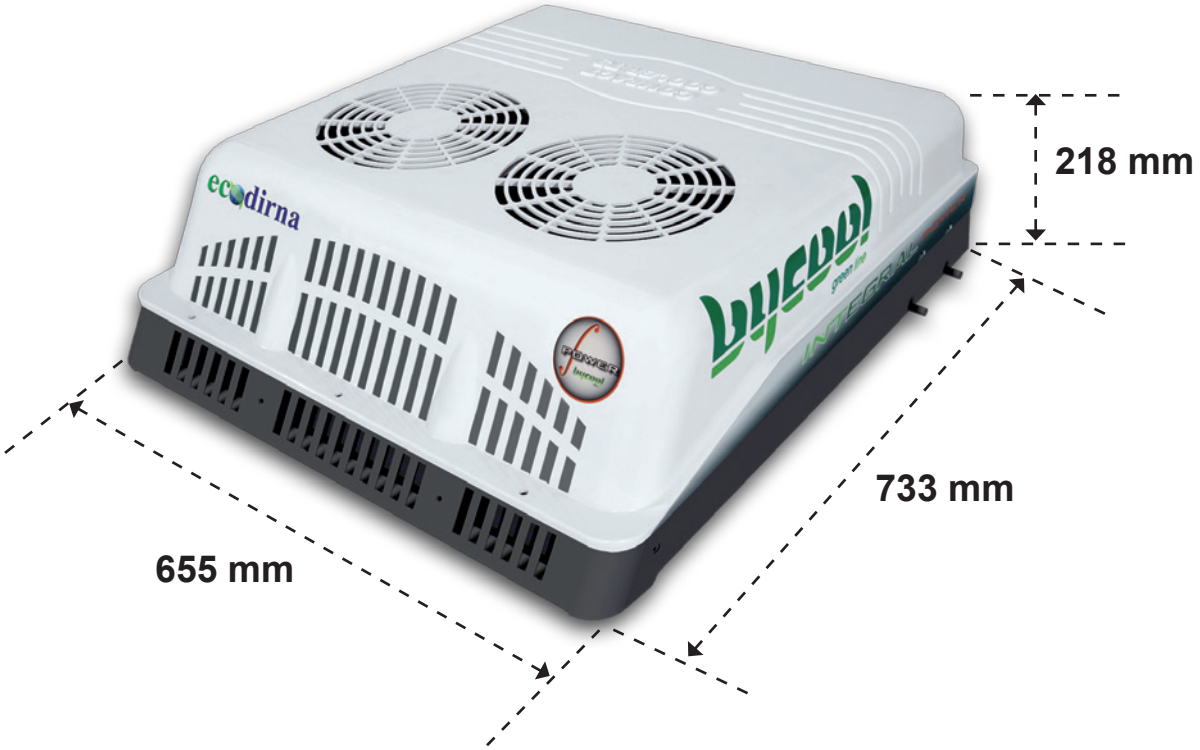
⚠ **Équipement préchargé avec du gaz réfrigérant R-134a, (I.P. 12 V. 500 g. - I.P. 24 V 500 g) (Ne pas manipuler le circuit de gaz réfrigérant).**

⚠ Voir **la procédure de garantie** du produit au **Diagnostic de problèmes**.

⚠ Voir le **Guide de l'Usager** de l'appareil pour le fonctionnement correcte de la télécommande et du tableau de commande.

⚠ Après l'installation, vous devez fournir à l'utilisateur: **Manuel d'utilisation**, **garantie** et **diagnostic de pannes**.

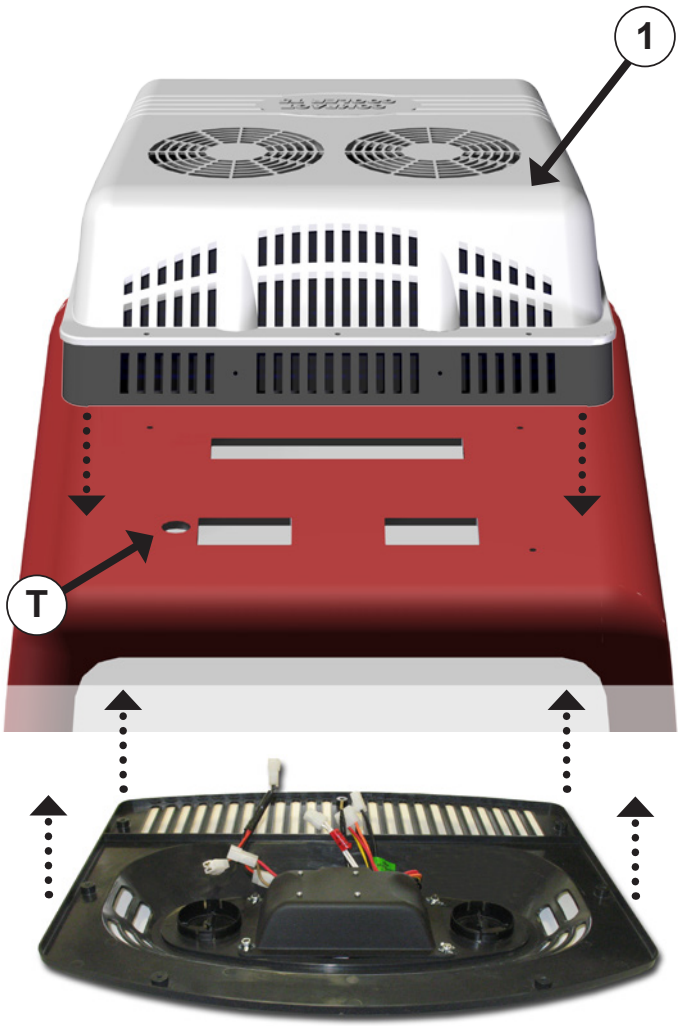
INTEGRAL POWER



DONNÉES TECHNIQUES				
Puissance frigorifique	Tension d'alimentation	Intensité absorbée	Débit d'air	Poids total
3200 w	**12V / 24V**	**30A / 45A ****	**700 m³/h**	**43,5 Kg**

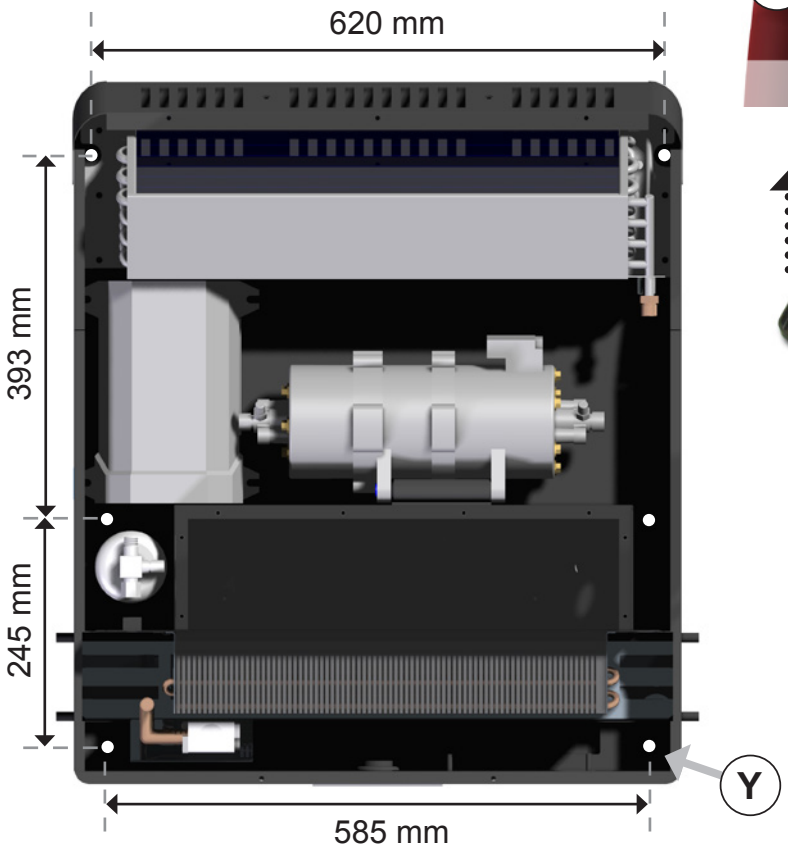
(**) Selon norme JIS, conditions d'essai : température extérieure 35 ºC, température retour 27 ºC.
(**) Consommations extraites de l'essai avec une température extérieure d'entre 30 ºC et 42 ºC.

1 Situer l'équipement **Integral Power** sur le plafond. La position finale doit correspondre à la partie frontale fournie (0911860035). Il doit être placé sur une surface plate.

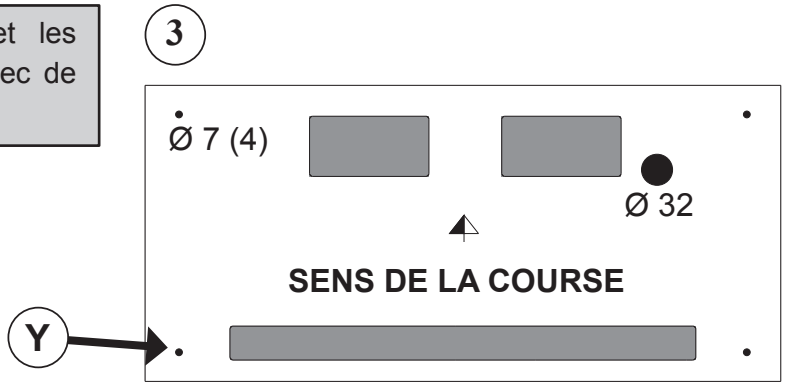


2 Une fois que la position est définie, retirer la carcasse et marquer (6) trous (**Y**) et faire ensuite coïncider les (4) trous du patron avec les (4) trous arrières du plafond (figure 3).

Tenir compte de la flèche qui indique le sens de la course.

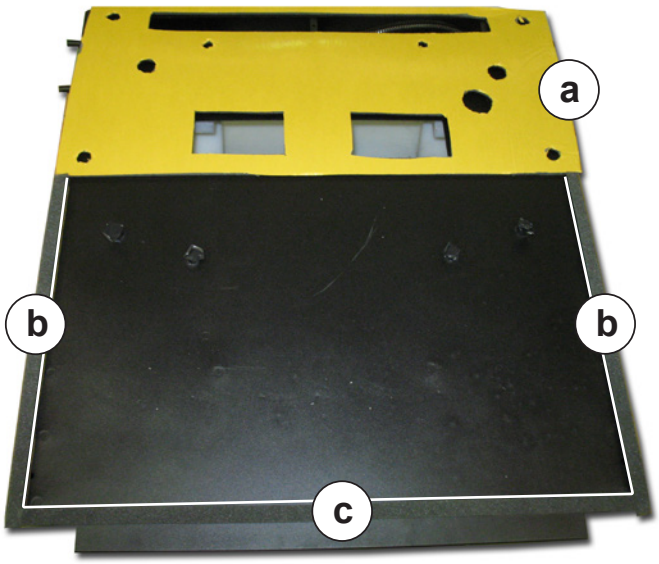


3 Marquer les coupes et les trous et les réaliser (protéger les bords coupés avec de l'antioxydant).



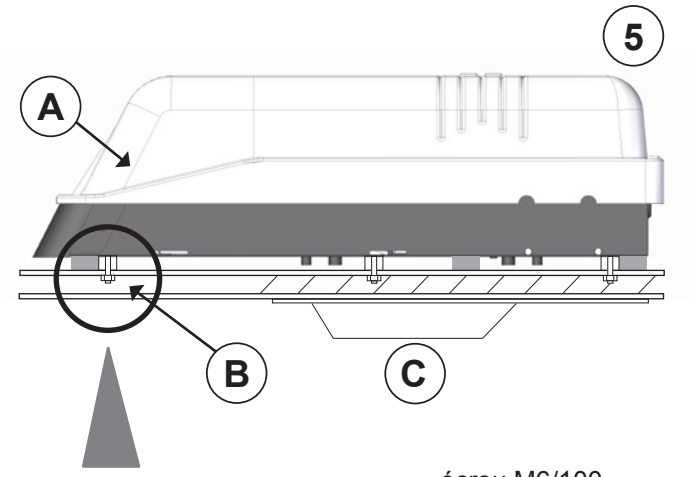
4 Placer le joint d'étanchéité, les joints latéraux et le joint frontal sur la partie intérieure du **Compact** comme cela est indiqué.

a	Joint étanchéité
b	Joints latéraux
c	Joint frontal

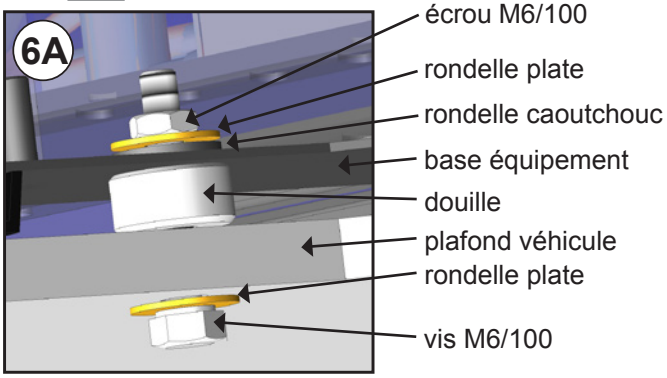


5 Passer le câblage à travers le trou (T) réalisé sur le plafond à cet effet (figure 1). Placer ensuite l'**Integral Power** (**A**) avec (6) douilles de 13 mm, des rondelles en caoutchouc et (6) vis M6/100x40 (**B**) et écrous M6/100.

⚠ **Important : assurer l'étanchéité de l'ensemble sur le plafond pour éviter de possibles entrées d'eau.**

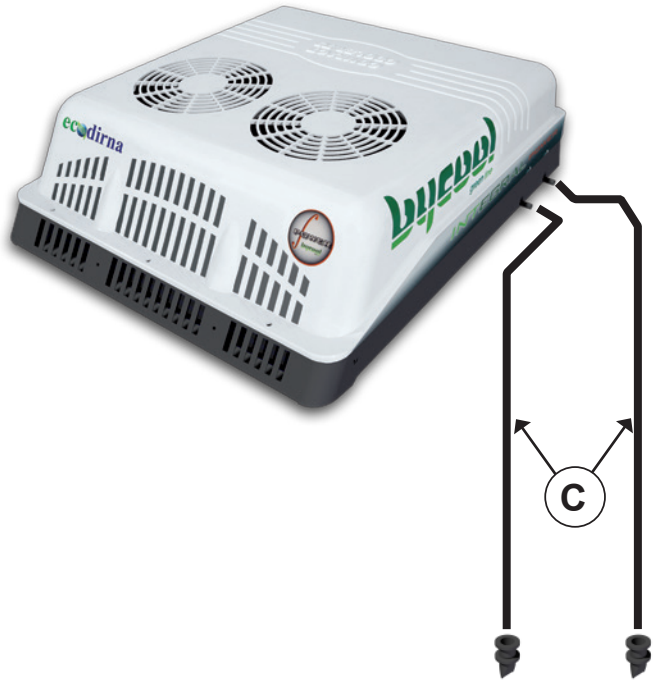


6A Placer les rondelles en caoutchouc pour éviter le passage de l'eau.



6B Sceller les trous avec de la silicone.

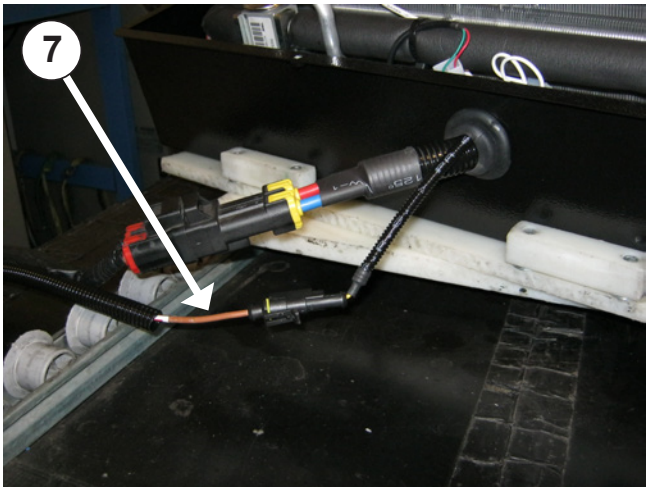
6C	Placer un tuyau en PVC en fonction des besoins de longueur.

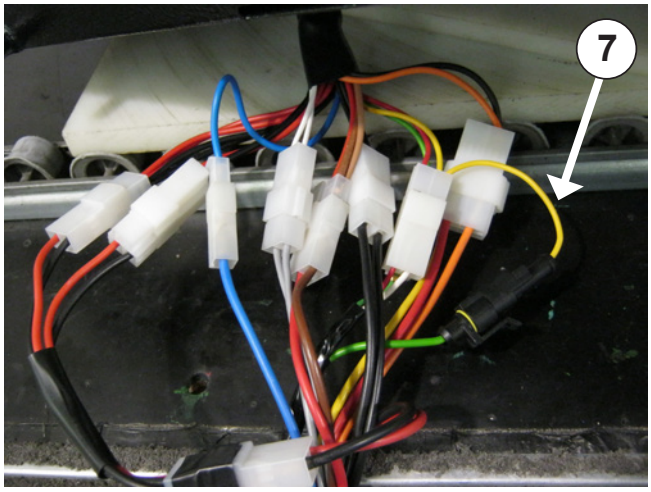


Câblage d'excitation

⚠	**Attention:** l'installation de câblage d'excitation sur tous les véhicules sauf les camions.

7	Placer le câblage d'excitation à l'intérieur et à l'extérieur du véhicule, selon les besoins.



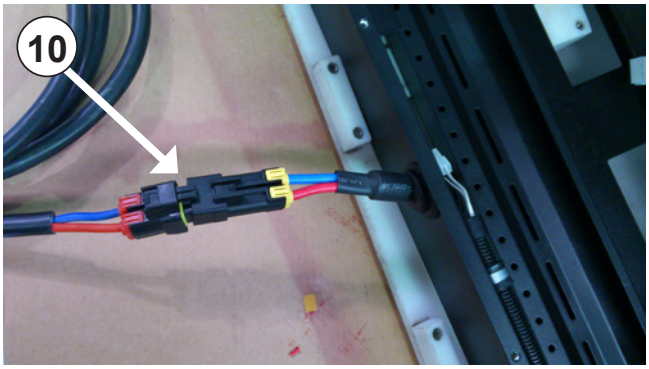


8 Connecter l'autre extrémité sur la position **(+) seulement avec le moteur en marche.**

9 Connecter le câblage à la partie avant (Point C page 19) et fixer l'avant avec les vis fournies.

⚠ **Important : avant de monter la partie avant, il faut placer l'interrupteur sur la position correcte pour chaque véhicule.**

10 Connecter le câble d'alimentation supérieur à la partie arrière de l'équipement.

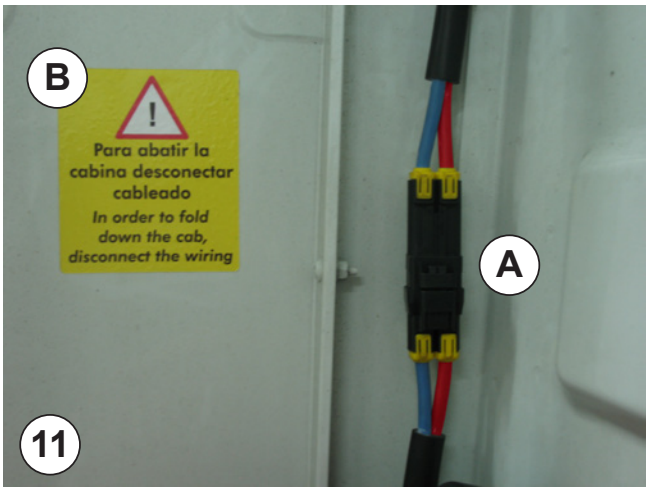


11 Connecter le câble d'alimentation inférieur (**A**) en le menant à la batterie et placer des adhésifs de danger d'union de câblage sur un lieu visible (**B**).

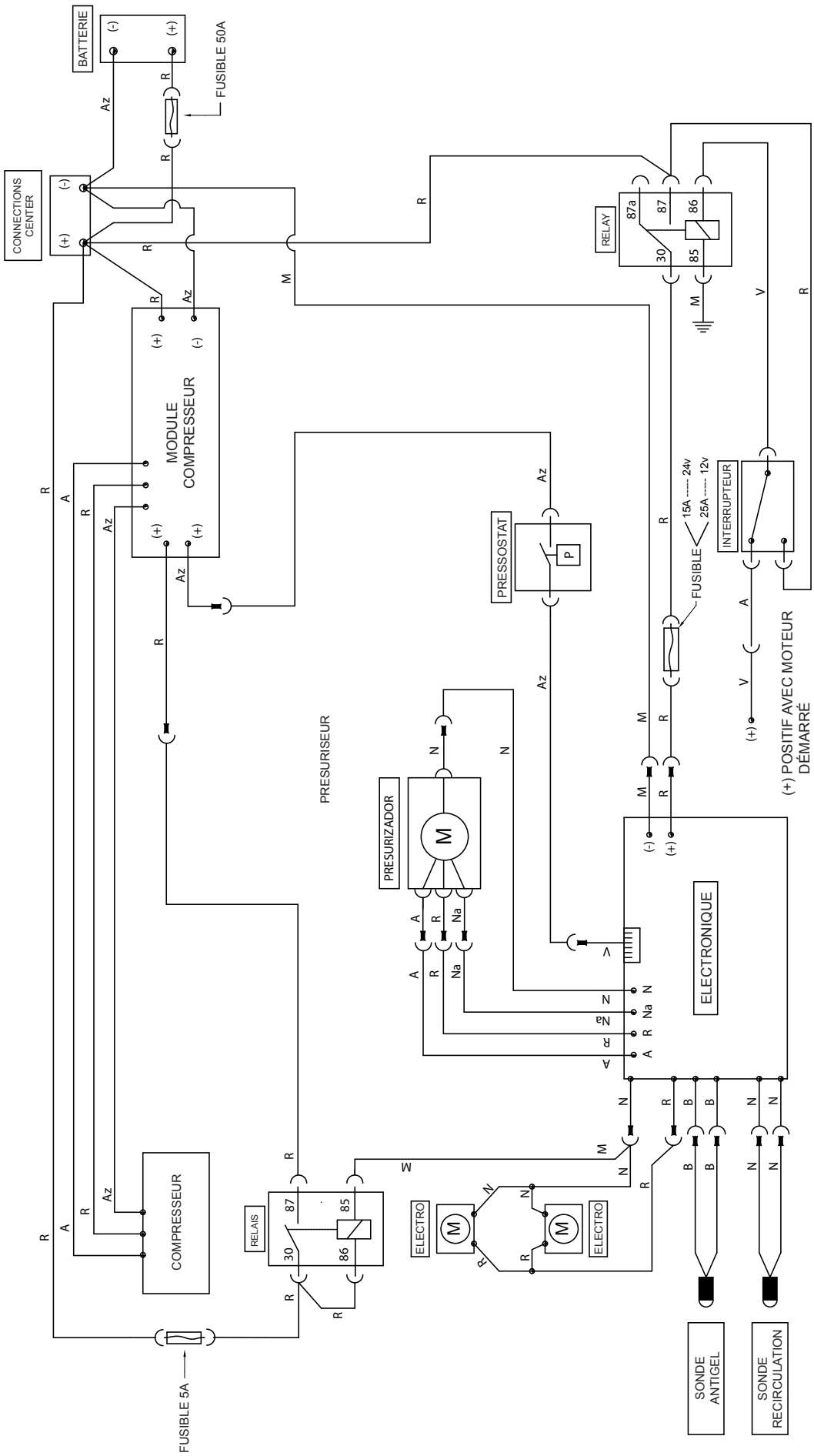
⚠ **Important:** Au moment de connecter les câblages, prévoir une distance suffisante pour éviter leur rupture à cause des mouvements du véhicule.

⚠ **Important:** En raison de la complexité du système de réglage électronique de l'équipement, la prise de courant doit se réaliser directement à la batterie du véhicule (si cela n'est pas possible, contacter **dirna Bergstrom, s.l.).**

⚠ **Important :** Pour la mise en marche, consultez le **manuel de l'usager (220AA21001).**



Câblage electrique



Empfehlungen Zur montage

- Vor und während der Montage bitte diese Anweisungen lesen und beachten.
- Benutzen Sie für jeden Arbeitsschritt die geeigneten Werkzeuge.

Elektrizität

- Zündschlüssel abziehen.
- Vor Montagebeginn die Batterie abklemmen.
- Den ordnungsgemäßen Anschluss und die korrekte Installation der Elektrokomponenten überprüfen.

⚠ Achtung

Wird die Klimaanlage im Kabinendach installiert, muss der obere Teil der Kabine mit einem Tuch oder einer Decke gegen eventuelle Kratzer geschützt werden. Bei der Installation der **Compact** auf dem Kabinendach muss darauf geachtet werden, dass mit Luken ausgestattete Kabinen über eine ausreichend stabile Struktur verfügen, um das Gewicht des Geräts Stand zu halten. Sollte das Fahrzeug über keine Luke verfügen und sollte es notwendig sein, das Kabinendach aufzuschneiden, bzw. sollte die vorhandene Struktur nicht ausreichend stabil sein (z.B. wenn sie aus Faser, Kunststoff usw. hergestellt ist), obliegt es dem Installateur zu entscheiden, ob das Kabinendach zur Vermeidung von Verformungen, Brüchen, undichten Stellen usw. verstärkt werden muss, und die hierfür notwendigen Mittel bereit zu stellen.

Werkzeuge

- Torx-Schraubenschlüssel
- Inbusschraubenschlüssel
- 10er Schraubenschlüssel
- Schere
- Metermaß
- Drehmomentratsche - Ø 10
- Kreuzschraubendreher / Schraubendreher
- Kreissäge Ø 35
- Bohrer - Ø 7
- Stichsäge

Mitgelieferte unterlagen

Montageanweisungen	091186-091198
Benutzerleitfaden	220.AA2.1001
Fehlerdiagnose	220.AA2.1002
Garantie	220.AA1.0010

⚠ Warnhinweise

⚠ Der Installateur muss im Bereich Fahrzeug-Klimaanlagen ausreichend geschult sein.

⚠ **dirna Bergstrom, s.l.** übernimmt keine Verantwortung für Schäden oder Brüche aufgrund einer nicht ordnungsgemäßen Installation oder Bedienung des Geräts oder den Austausch von Teilen bzw. Umbauten, die ohne die erforderliche schriftliche Genehmigung durchgeführt wurden.

⚠ **Mit Kühlgas R-134a, (I.P. 12 V. 500 g. - I.P. 24 V 500 g) vorgekühltes Gerät (Kühlgaskreislauf nicht manipulieren).**

⚠ Siehe **Garantieverfahren** des Produkts in der **Fehlerdiagnose**.

⚠ Siehe **Benutzerleitfaden** des Geräts für den ordnungsgemäßen Betrieb der Fernbedienung und des Bedienfelds.

⚠ Die folgenden Unterlagen müssen dem Benutzer nach der Installation ausgehändigt werden: **Benutzerleitfaden**, **Garantie** und **Fehlerdiagnose.**

INTEGRAL POWER

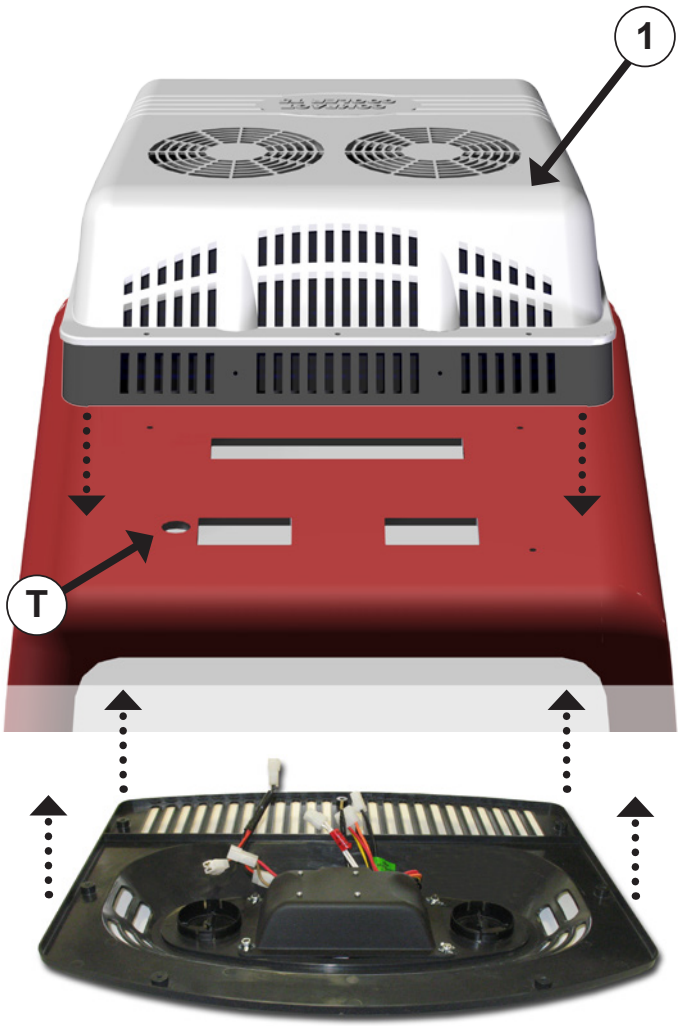
TECHNISCHE DATEN				
Kühl-leistung	Speise-spannung	Aufgenommene Stromstärke	Luft-durchsatz	Gesamt-gewicht
3200 w	**12V / 24V**	**30A / 45A ****	**700 m³/h**	**43,5 Kg**

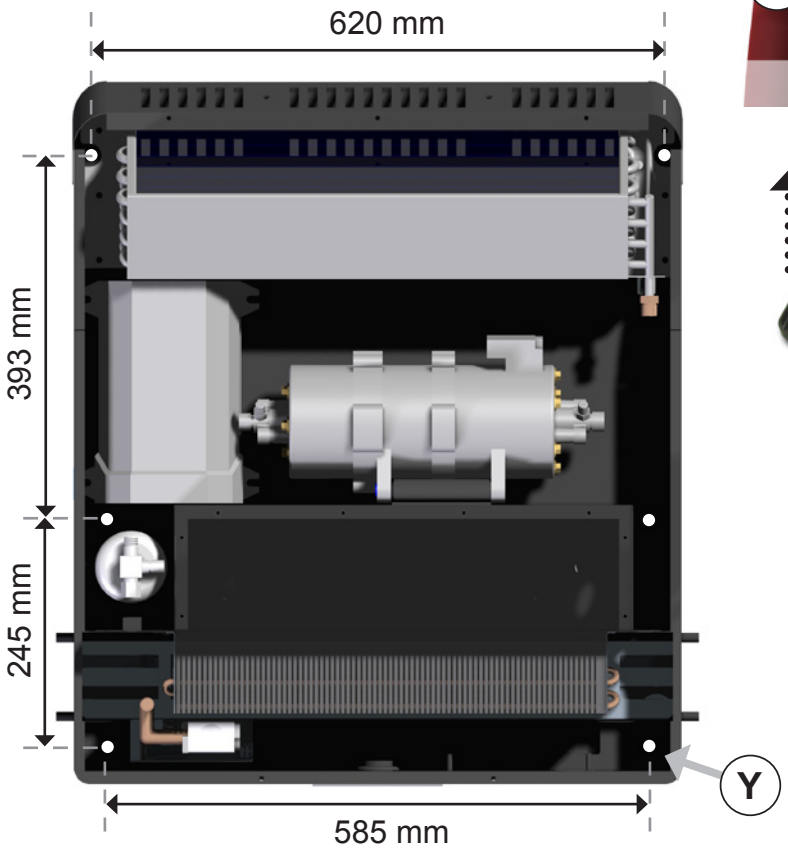
(**) Gemäss JIS-Norm, Prüfbedingungen: Außentemperatur 35 ºC, Rücklauftemperatur 27 ºC.
(**) Verbräuche entsprechend Prüfung bei Außentemperatur zwischen 30 ºC und 42 ºC.

1 **Integral Power** auf einer ebenen Fläche auf dem Dach positionieren. Dabei berücksichtigen, dass die endgültige Position mit der mitgelieferten Front (0911860035) übereinstimmen muss.

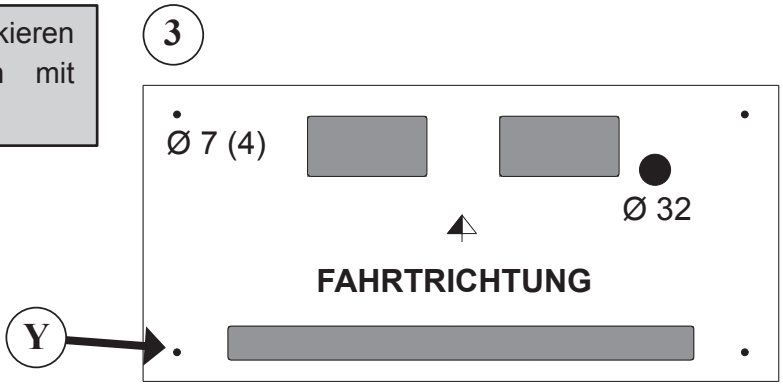
2 Nach Festlegung der Position, das Gehäuse abnehmen und (6) Löcher (**Y**) markieren. Danach die (4) Bohrlöcher der Vorlage mit (4) hinteren Löchern des Dachs (Abb. 3) in Übereinstimmung bringen.

Auf den Pfeil achten, der die Fahrtrichtung anzeigt.



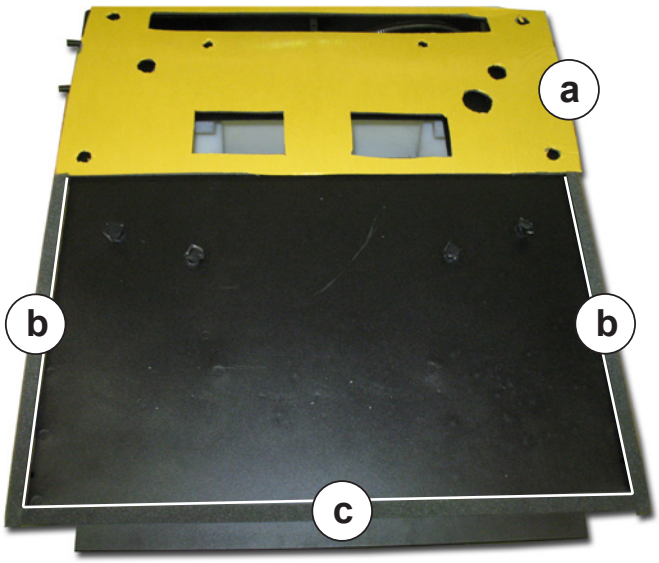


3 Die Schnitte und Bohrlöcher markieren und durchführen (die Schnittkanten mit Rostschutzmittel schützen).



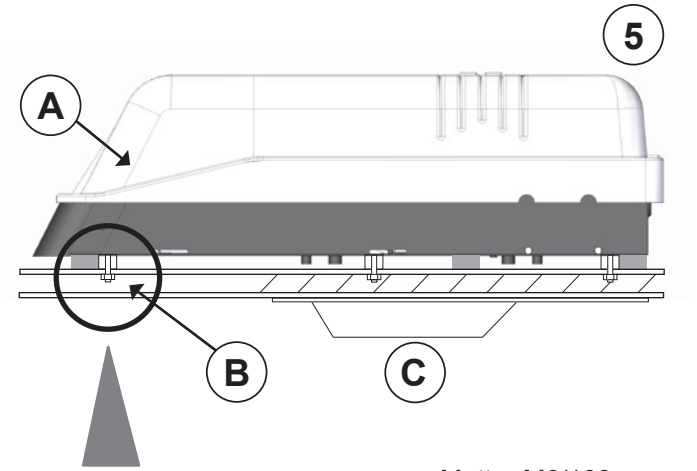
4 Verschlussdichtung, Seitendichtungen und Frontdichtung auf der Innenseite der Kompaktanlage wie gezeigt anbringen.

a	Verschlussdichtung
b	Seitendichtungen
c	Frontdichtung

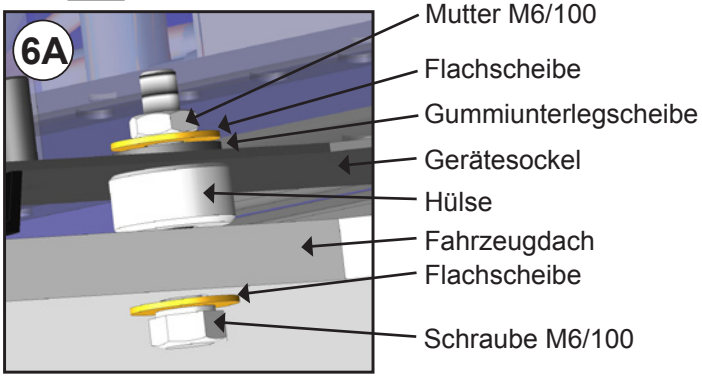


5 Kabel durch das hierfür angefertigte Bohrloch (T) führen (Abb. 1). **Integral Power** (**A**) mit (6) 13 mm Hülsen, Gummischeiben und (6) Schrauben M6/100x40 (**B**) und Muttern M6/100 anbringen.

⚠ **Wichtiger Hinweis: Dichtigkeit der Baugruppe zum Dach hin sicherstellen, um möglichen Wassereintritt zu verhindern.**

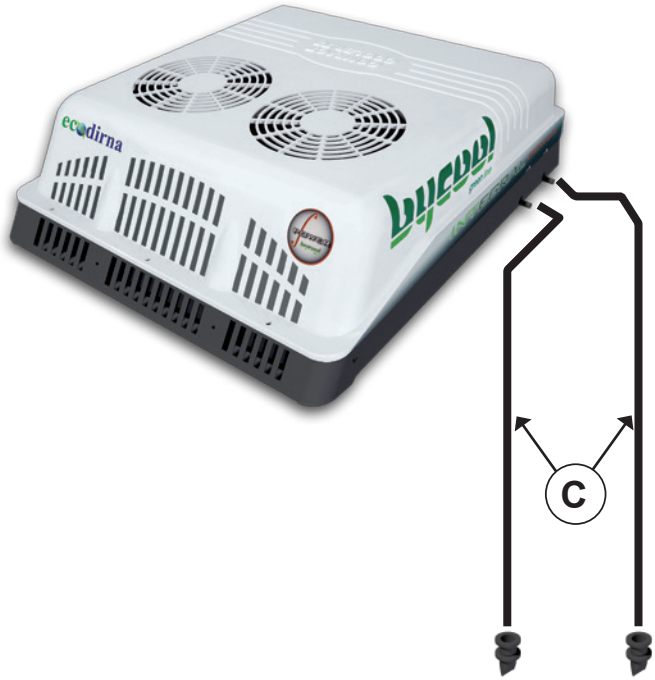


6A Gummiunterlegscheiben zur Vermeidung von Wassereintritt anbringen.



6B Bohrlöcher mit Silikon abdichten.

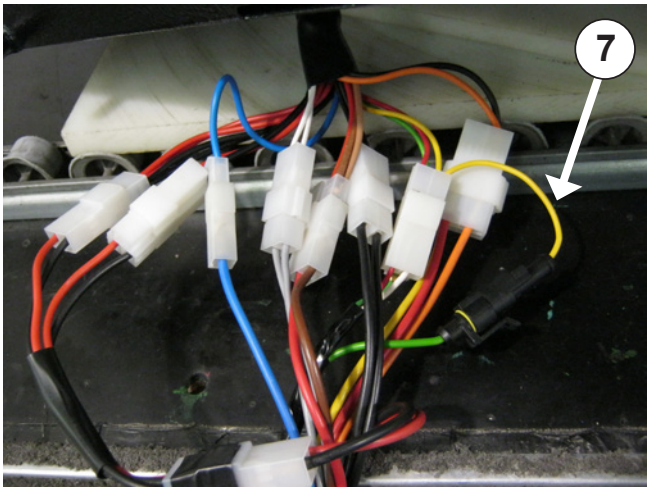
6C	PVC-Rohr je nach Längebedarf.

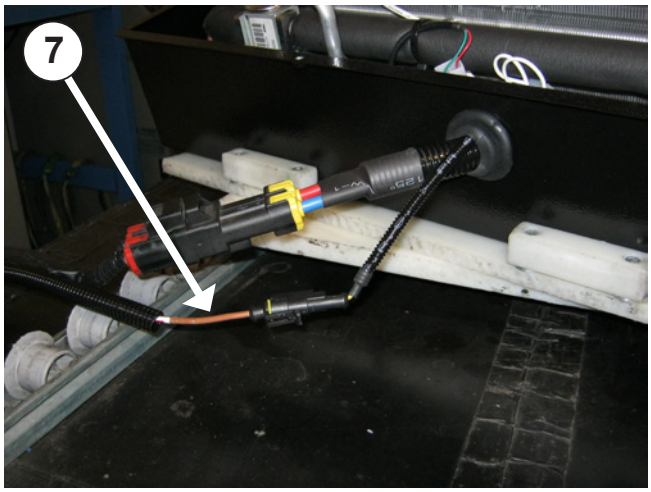


Erregerkabel

⚠	**Achtung:** Wiring Anregung Installation auf alle Fahrzeuge außer LKW.

7	Erregerkabel innerhalb oder außerhalb des Fahrzeugs verlegen.



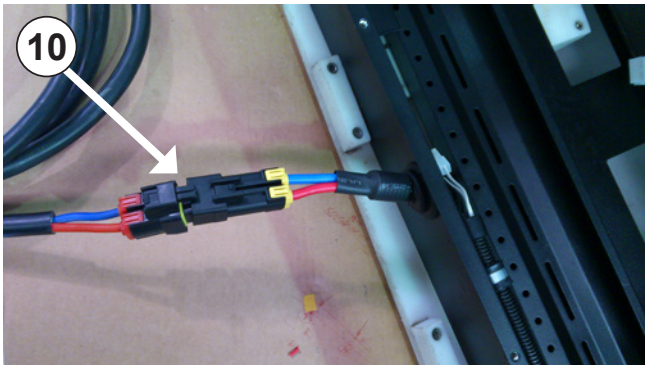


8 Das andere Ende **nur bei angelassenem Motor auf (+)** stellen.

9 Kabel an Frontteil anschließen (Punkt C, Seite 5) und Frontteil mit den mitgelieferten Schrauben befestigen.

⚠ **Wichtig: Vor Montage des Frontteils den Schalter auf die für das jeweilige Fahrzeug richtige Position stellen.**

10 Oberes Stromkabel an der Hinterseite des Geräts anschließen.

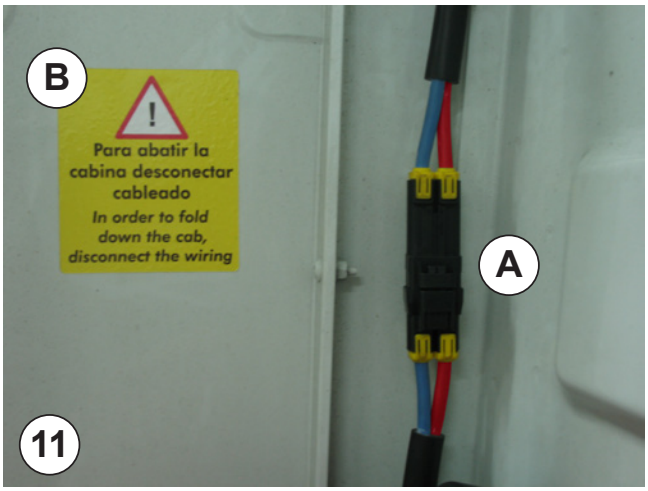


11 Unteres Stromkabel (**A**) anschließen und zur Batterie führen und Gefahrenaufkleber für die Kabelverbindung an einem sichtbaren Ort (**B**) anbringen.

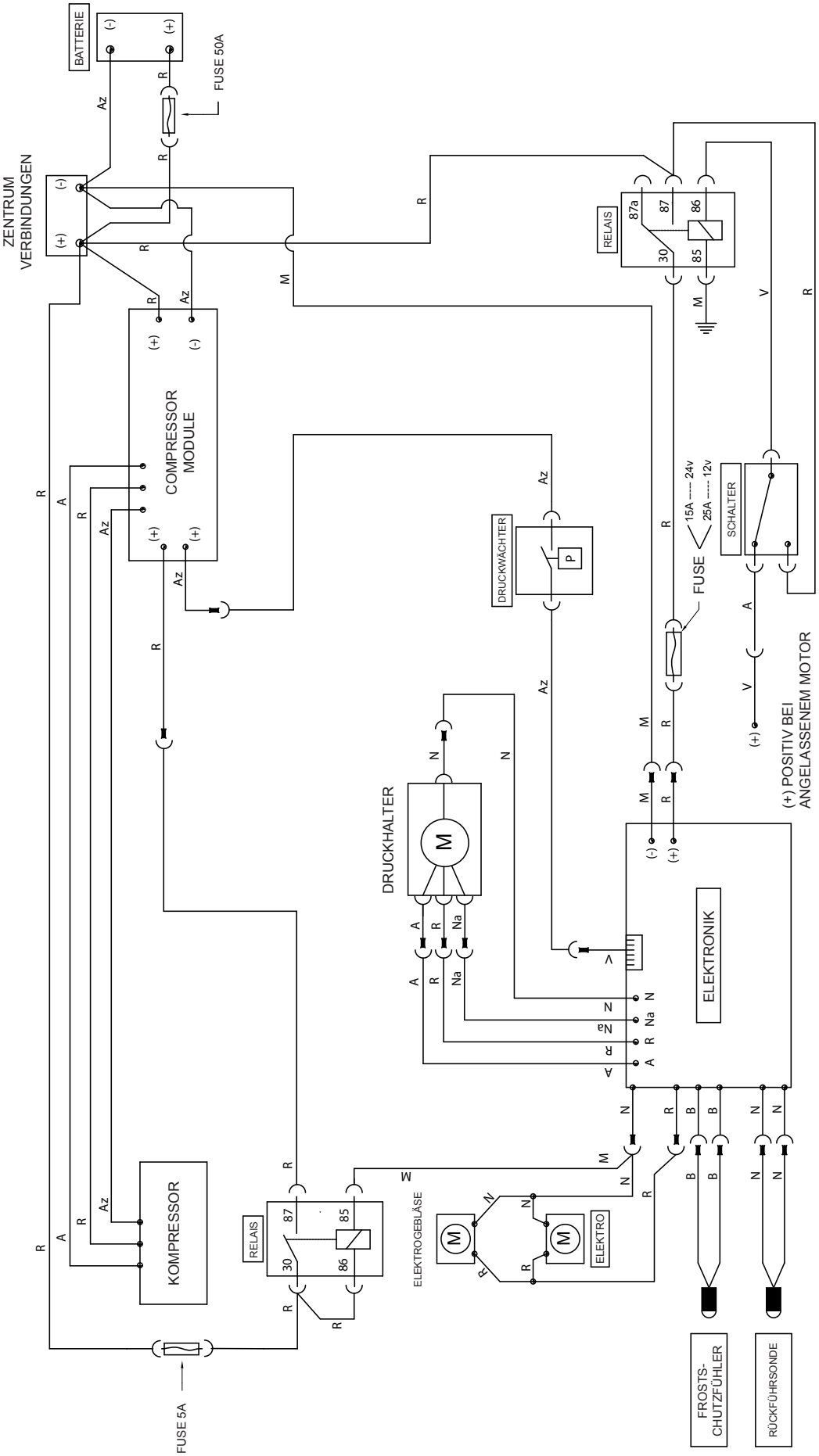
⚠ **Wichtiger Hinweis:** Beim Anschluss der Kabel ausreichenden Abstand lassen, um deren Bruch durch die Bewegungen des Fahrzeugs zu vermeiden.

⚠ **Wichtiger Hinweis:** Aufgrund des komplexen elektronischen Regelsystems des Geräts muss der Stromanschluss direkt an die Fahrzeugbatterie erfolgen (falls dies nicht möglich ist, setzen Sie sich bitte mit **dirna Bergstrom, s.l.** in Verbindung**).**

⚠ **Wichtiger Hinweis:** Für die Inbetriebnahme, lesen Sie bitte im B**enutzerhandbuch (220AA21001)** nach.



ElektrischeVerkabelung



Suggerimenti per il montaggio

- Prima di cominciare il montaggio, leggere attentamente le istruzioni e rispettarle nel corso dello stesso.
- Usare gli attrezzi più adatti ad ogni operazione.

Elettricitá

- Scollegare la chiave di contatto.
- Scollegare la batteria prima di cominciare il montaggio.
- Assicurarsi di aver effettuato correttamente l'installazione e il collegamento dei componenti elettrici.

⚠ Attenzione

Quando si installa l'impianto di aria condizionata sul tettuccio, bisogna proteggere la parte superiore della cabina con uno straccio o una coperta per evitare eventuali graffi. Per l'installazione del **Integral Power**, tenere presente che normalmente le cabine munite di oblò dispongono di una struttura abbastanza solida per sostenere il peso dell'impianto. Tuttavia, se così non fosse e se fosse necessario tagliare il tettuccio, o se in presenza di oblò la struttura non fosse abbastanza rigida (se fosse di fibra, plastica, ecc.), è responsabilità dell'installatore decidere se occorre rinforzare il tettuccio per evitare qualsiasi deformazione, rottura o penetrazione d'acqua, ecc., prendendo le misure necessarie per evitarlo.

Attrezzi

- Kit di chiavi Torx
- Kit di chiavi Allen
- Chiave fissa 10
- Forbici
- Metro a nastro
- Set chiavi a cricchetto - bocca Ø 10
- Cacciavite stella / cacciavite
- Sega circolare Ø 35
- Trapano - bocca Ø 7
- Sega a svolgere

Documentazione allegata

Istruzioni di montaggio	091186-091198
Guida dell'utente	220.AA2.1001
Soluzione dei problemi	220.AA2.1002
Garanzia	220.AA1.0010

⚠ Avvertenze

⚠ L'installatore deve essere in possesso della formazione necessaria in materia di aria condizionata per veicoli.

⚠ **dirna Bergstrom, s.l.** declina ogni responsabilità per danni o rotture derivanti dall'errata installazione o dall'errato uso dell'impianto o da sostituzioni o modifiche effettuate senza la necessaria autorizzazione per iscritto.

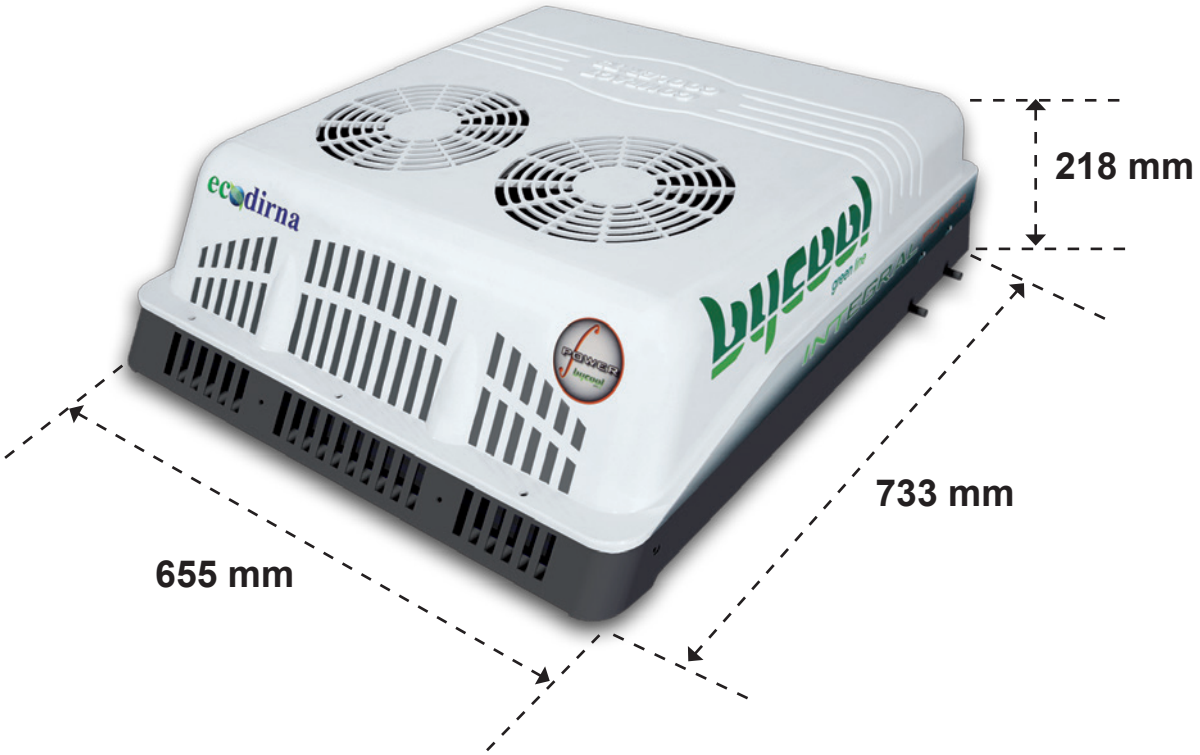
⚠ **Dispositivo precaricato con gas refrigerante R-134a, (I.P. 12 V. 500 g. - I.P. 24 V 500 g) (Non manomettere il circuito di gas refrigerante).**

⚠ Vedi la **procedura di garanzia** del prodotto in **Diagnosi dei problemi**.

⚠ Vedi la **Guida dell'utente** dell'impianto per il corretto funzionamento del telecomando e del pannello di controllo.

⚠ I seguenti documenti devono essere consegnati all'utente una volta conclusa l'installazione: **Guida dell'utente, Garanzia e Diagnosi dei problemi.**

INTEGRAL POWER



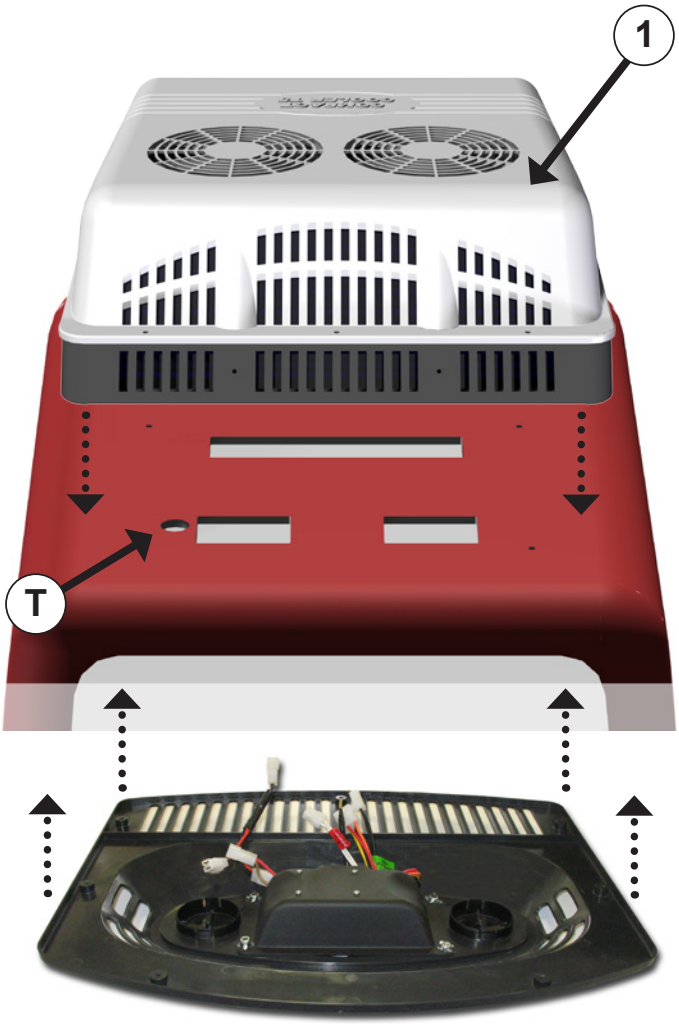
DATI TECNICI				
Potenza frigorifera	Tensione di alimentazione	Intensità assorbita	Portata d'aria	Peso totale
3200 w	**12V / 24V**	**30A / 45A ****	**700 m³/h**	**43,5 Kg**

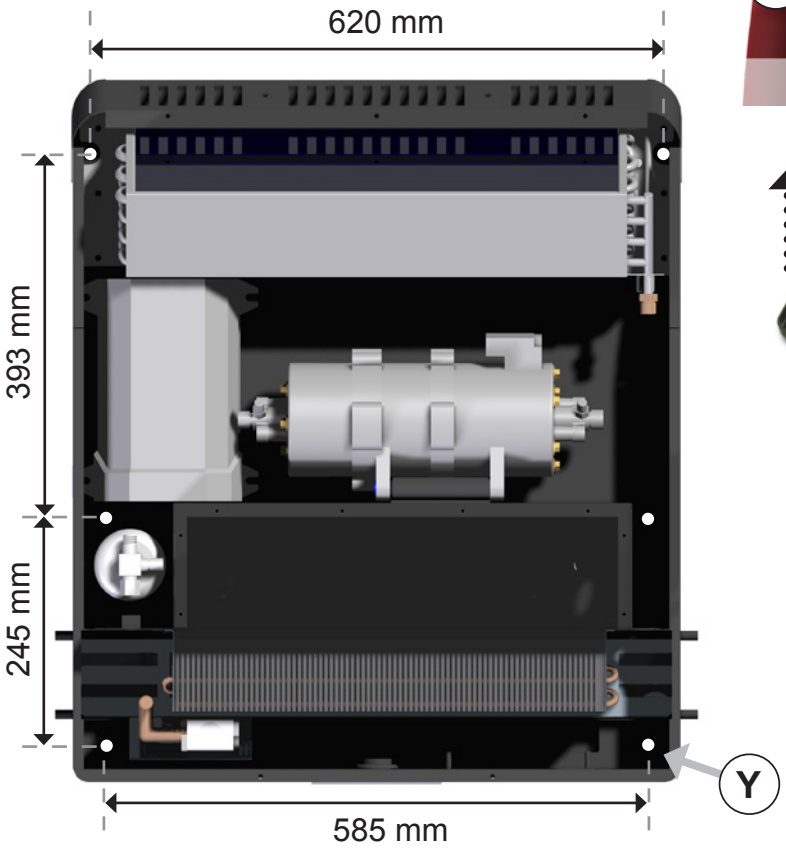
(**) Secondo la norma JIS, condizioni di test: temperatura esterna 35ºC, temperatura ritorno 27º C.
(**) Consumi testati con temperatura esterna tra 30º C e 42 ºC.

1 Posizionare l'impianto **Integral Power** sul tettuccio, tenendo conto che la posizione finale deve coincidere con il frontalino in dotazione (0911860035) facendo in modo che sia livellato sulla superficie.

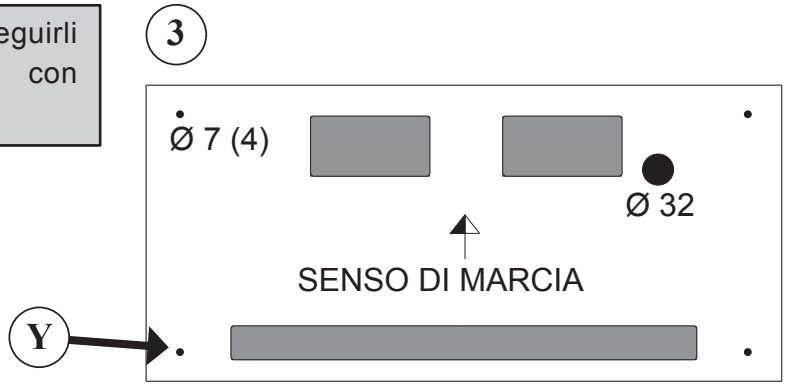
2 Una volta determinata la posizione, rimuovere l'involucro e segnare i (6) fori (**Y**) e quindi fare coincidere i (4) fori della dima con i (4) fori posteriori del tettuccio (figura 3).

Tenere conto della freccia che indica il senso di marcia.



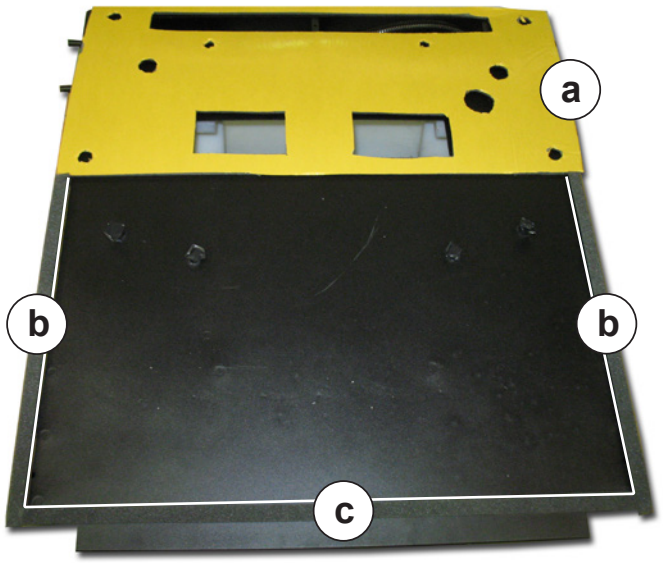


3 Segnare i tagli e i fori e quindi eseguirli (proteggere i bordi tagliati con antiossidante).



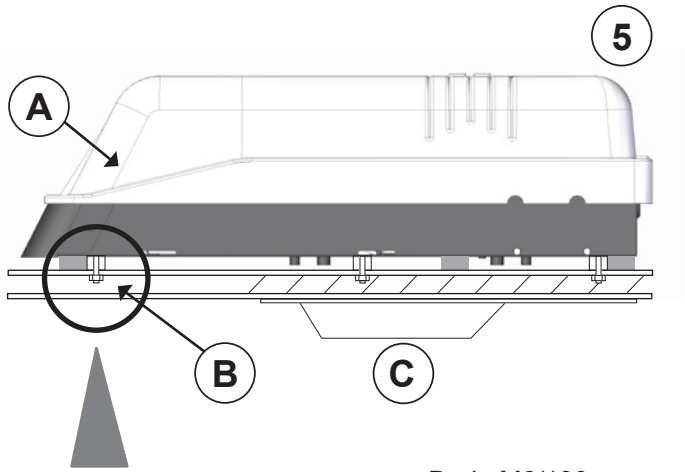
4 Montare la guarnizione di chiusura, le guarnizioni laterali e quella frontale nella parte interna, come illustrato nella figura.

a	Guarnizione di chiusura
b	Guarnizioni laterali
c	Guarnizione frontale

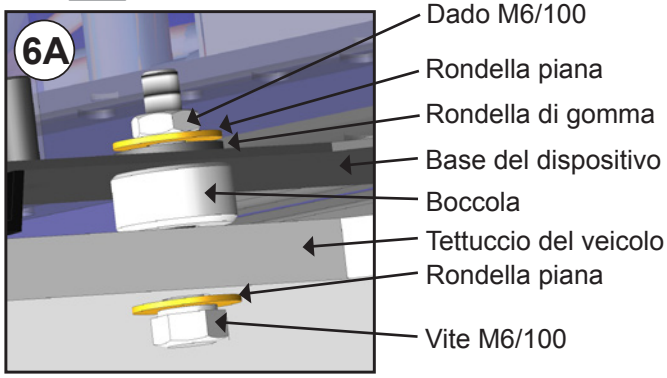


5 Far passare il cablaggio nell'apposito foro (T) sul tettuccio (figura 1). Fissare **l'Integral Power** (A) con (6) boccole da 13 mm, le rondelle di gomma e (6) viti M6/100x40 (B) e i dadi M6/100.

Nota bene: Verificare la tenuta dell'insieme sul tettuccio per evitare eventuali infiltrazioni d'acqua.

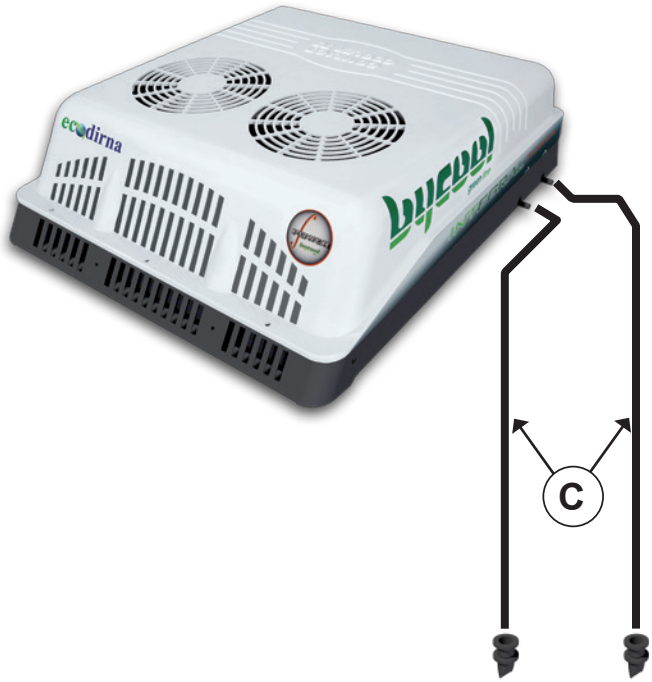


6A Inserire le rondelle di gomma per evitare l'infiltrazione dell'acqua.



6B Sigillare i fori con silicone.

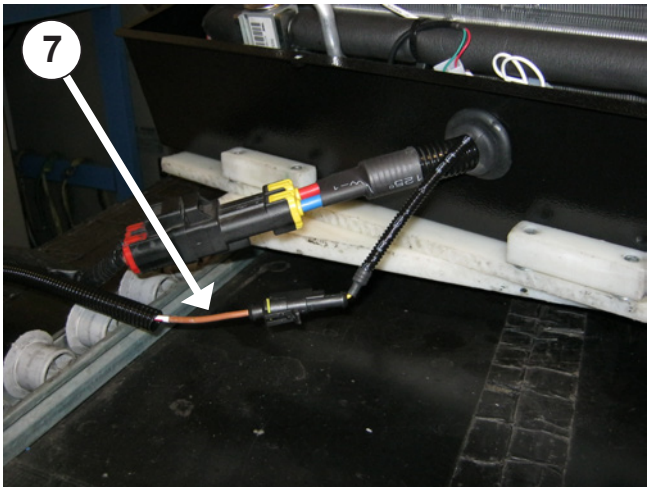
6C	Montare il tubo di PVC alla lunghezza necessaria.

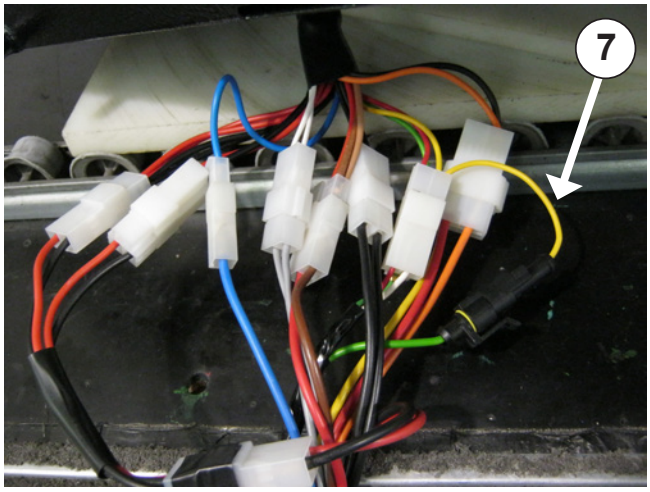


Cablaggio d'eccitazione

⚠	**Attenzione:** eccitazione installazione di un cavo su tutti i veicoli ad eccezione di camion.

7	Montare il cablaggio di eccitazione dall'interno o dall'esterno del veicolo a seconda della convenienza.



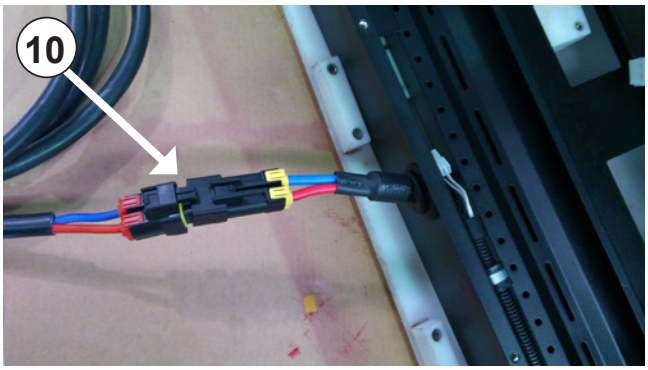


8 Collegare l'altra estremità in posizione **(+) solo con il motore acceso.**

9 Collegare il cablaggio al frontalino (Punto C pagina 33) e fissare il frontalino con le viti in dotazione.

⚠ **Nota bene: prima di montare il frontalino, posizionare correttamente l'interruttore a seconda del veicolo.**

10 Collegare il cavo di alimentazione superiore alla parte posteriore dell'impianto.

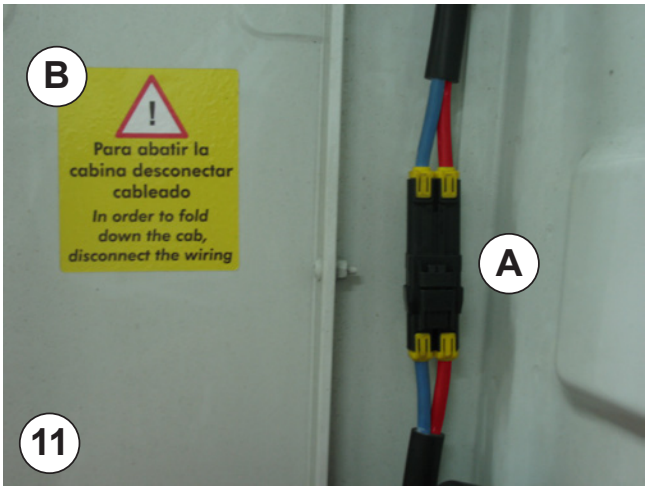


11 Collegare il cavo di alimentazione inferiore (**A**) portandolo fino alla batteria e applicare in un posto visibile gli adesivi indicanti il pericolo che comporta la connessione del cablaggio (**B**).

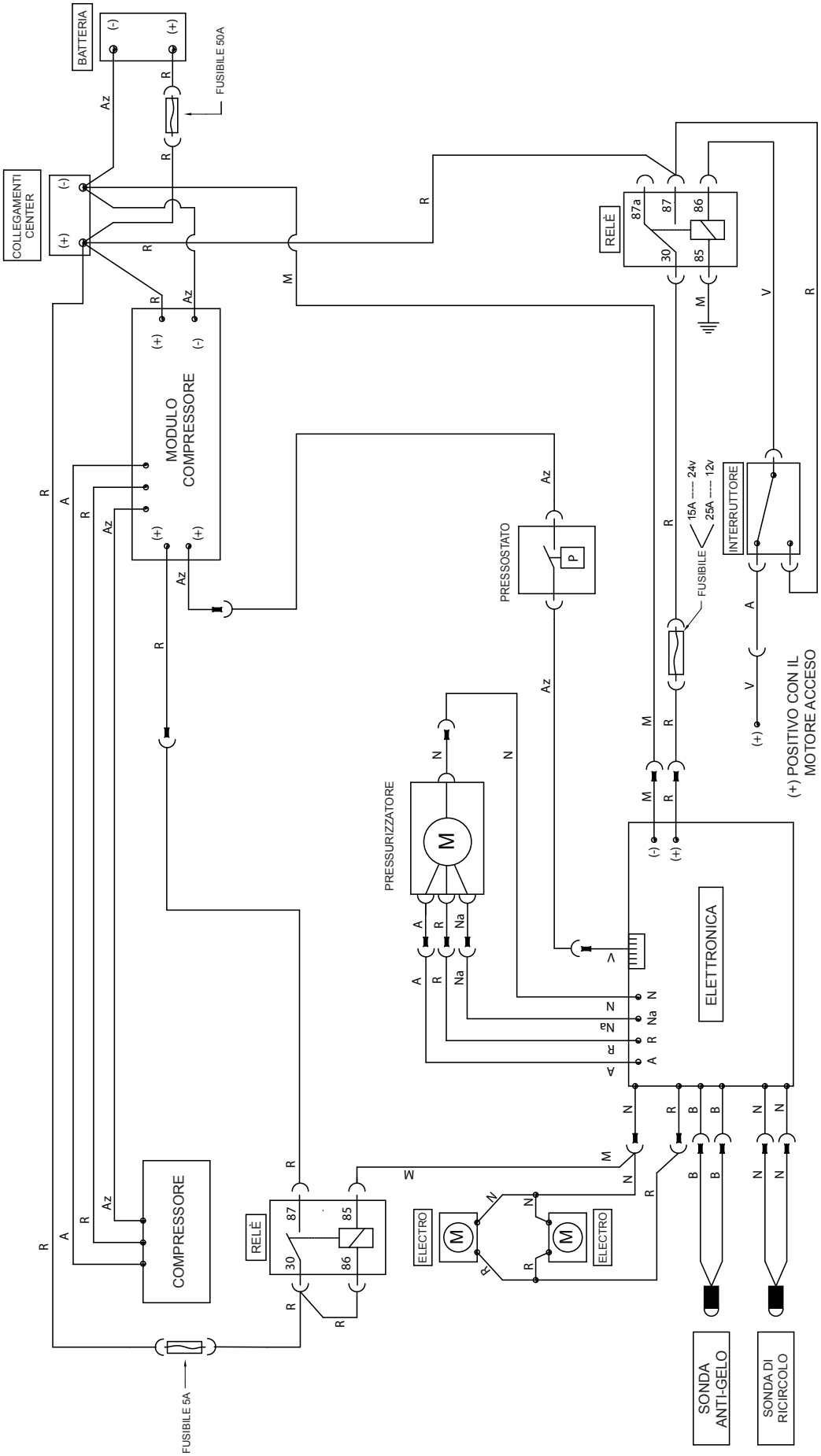
⚠ **Nota bene:** Per collegare i cablaggi, lasciare una distanza adeguata per evitarne la rottura a causa dei movimenti del veicolo.

⚠ **Nota bene:** Dato il complesso sistema di regolazione elettronica dell'impianto, la corrente deve essere presa direttamente dalla batteria del veicolo (se ciò non fosse possibile, si prega di interpellare **dirna Bergstrom, s.l.).**

⚠ **Nota bene:** Per l'avviamento, vedi il **Manuale dell'utente (220AA21001).**



Cablaggio elettrico



Montaj için Tavsiyeler

- Montaja başlamadan önce talimatları okuyun ve kurulum işlemi süresince bunlara uyun.
- Herbir işlem için uygun alet-edevatları kullanın.

Elektrik

- Kontak anahtarını kapatın.
- Montaja başlamadan önce batarya bağlantısını kesin.
- Elektrik bileşenlerinin bağlantılarının uygun şekilde olmasını sağlayın.

⚠ Dikkat

Klima cihazını kabinin üstüne monte ederken, kabinin üst tarafı bir pano ya da koruyucu bez ile olası çizilmelere karşı korunmalıdır. **Integral Power** kabinin üstüne monte edilirken normalde kabin kaportasının cihazı destekleyecek yeterli yapısal direnc sahip olduğu dikkate alınmalıdır. Ancak, durumun bu şekilde olmaması halinde, kabinin üstünde kesim yapılmasının gerekli olması durumunda ya da malzemenin yeteri kadar sağlam olmaması durumunda (kabin tavanının elyaf, plastik vb. yapılmış olması…) olası deformasyonları, kırılmaları, su girmesini vb… önlemek, kabin çatısını güçlendirmek, **kurulumu yapanın sorumluluğu altındadır.**

Alet-edevatlar

- Torx anahtar takımı
- Allen anahtar takımı
- Anahtar 10
- Makaslar
- Fleksometre
- Cırcır anahtar - ağız Ø 10
- Tornavida yıldız / düz
- Daire testere Ø 35
- Matkap - ağız Ø 7
- Kıl testere

Dokümantasyon

Montaj talimatları	091186-091198
Kullanım kılavuzu	220.AA2.1001
Arıza teşhisi	220.AA2.1002
Garanti	220.AA1.0010

⚠ Uyarılar

⚠ Kurulumu yapan kişi, araç klimaları konusunda yeterli bir eğitimden geçmiş olmalıdır.

⚠ **dirna Bergstrom, s.l.** bozulmaların cihazın uygunsuz manipülasyon ya da yanlış kurulumundan kaynaklanması ya da modifikasyon ve değişikliklerin şirketimizin yazılı izni olmadan yapılması durumunda ortaya çıkabilecek olumsuzluklardan sorumlu tutulamaz.

⚠ **Cihaza önceden gaz yüklenmiştir R-134a, (I.P. 12 V. 500 g. - I.P. 24 V 500 g) (Soğutucu gaz devreleri manipüle edilmemelidir).**

⚠ **Arıza Teşhisi** dahil ürünün **garanti sürecine** bakınız.

⚠ Uzaktan kumandanın ve kontrol panelinin doğru çalıştırılması için **Kullanım Kılavuzuna** bakınız.

⚠ **Kurulumdan sonra kullanıcıya şunlar sunulmalıdır:** Kullanım Kılavuzu, Garanti **ve** Arıza teşhisi.

INTEGRAL POWER

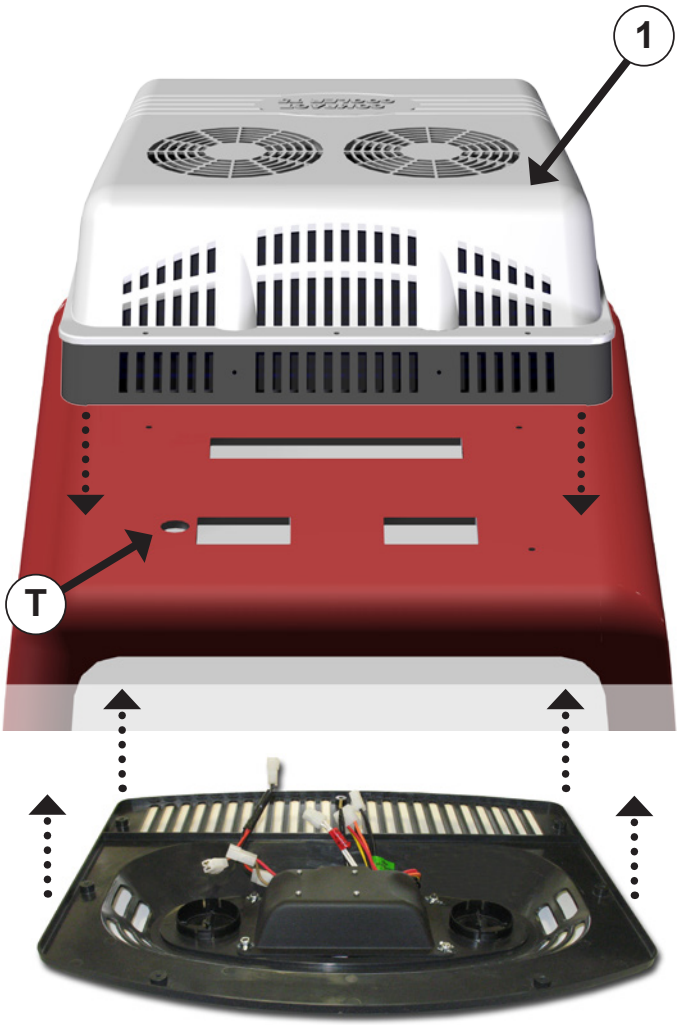
TEKNİK ÖZELLİKLER				
Soğutma Gücü	Çalışma Gerilimi	Soğurma Yoğunluğu	Hava Akışı	Toplam Ağırlık
3200W	**12/24 V**	**30A / 45A****	**700 m³/Saat**	**46,5 Kg.**

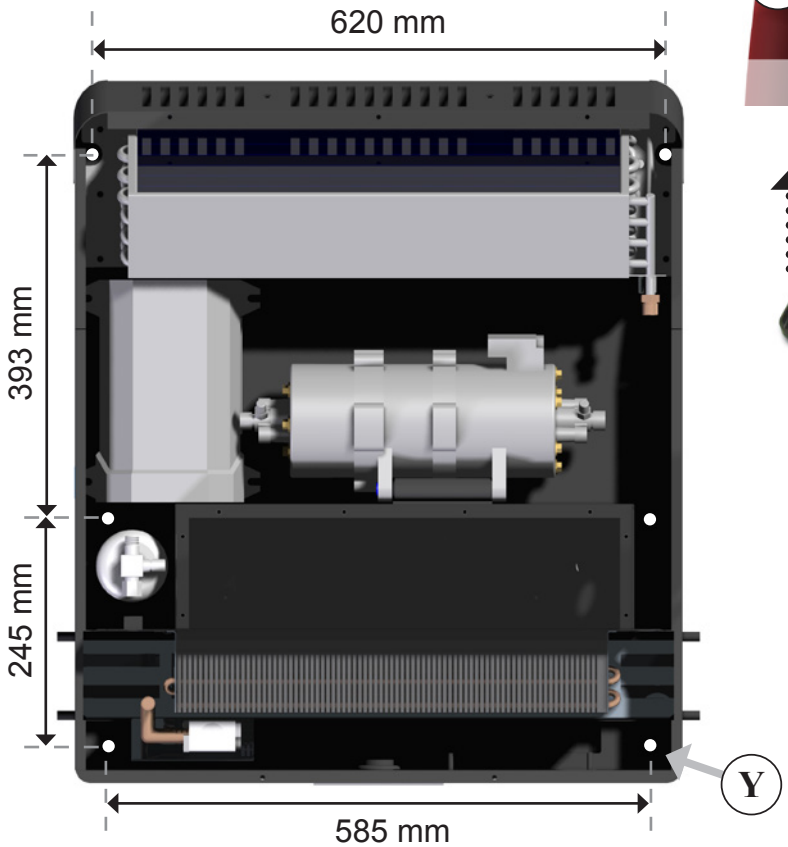
(**) JIS standartları uyarınca test koşulları: 33C dış ortam sıcaklığı, 27 C dönüş sıcaklığı

(**) 30 – 42 C arası dış ortam sıcaklığında icra edilen testlerde bulunan sarfiyat değerleri

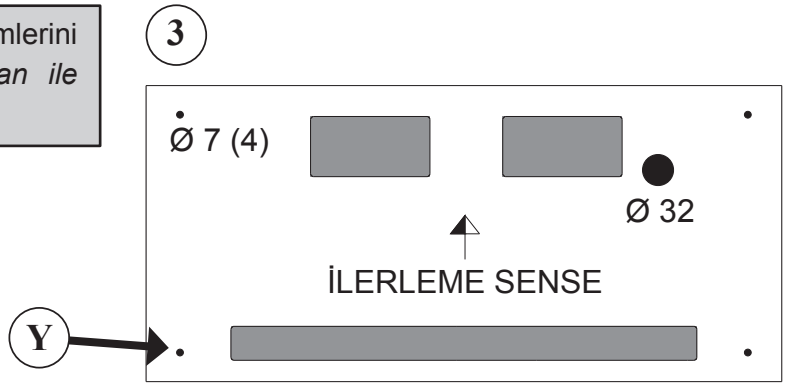
1 Entegre Güç Ünitesini kapak kısmına konumlandırın. Nihai konumun verilen ön bölüm ile (0911860035) uyumlu olmasına ve düz bir zemin üzerinde olmasına dikkat ediniz.

2 Konumu belli olduktan sonra kasa korumasını kaldırınız ve yuvaları işaretleyiniz. Ardından şablon yuva deliklerini kapak kısmı üzerinde bulunan arka yuva delikleri ile hizalandırınız.



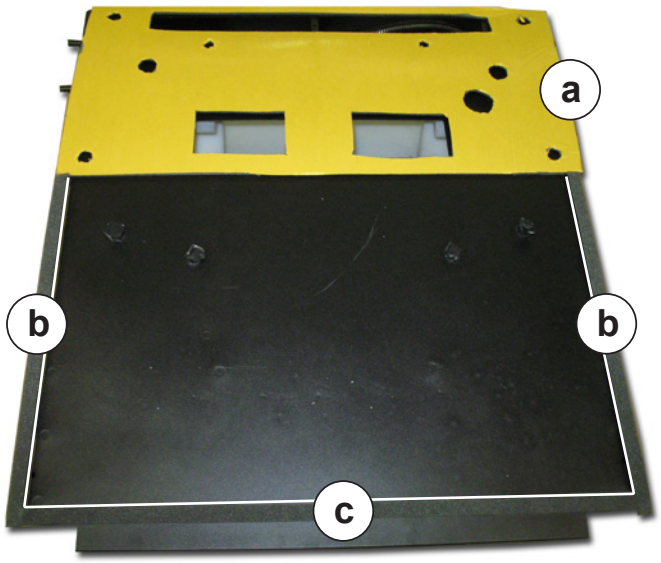


3 Yuva deliklerini işaretleyiniz ve kesimlerini yapınız. (*Keskin kenarları anti oksidan ile koruyunuz.*)



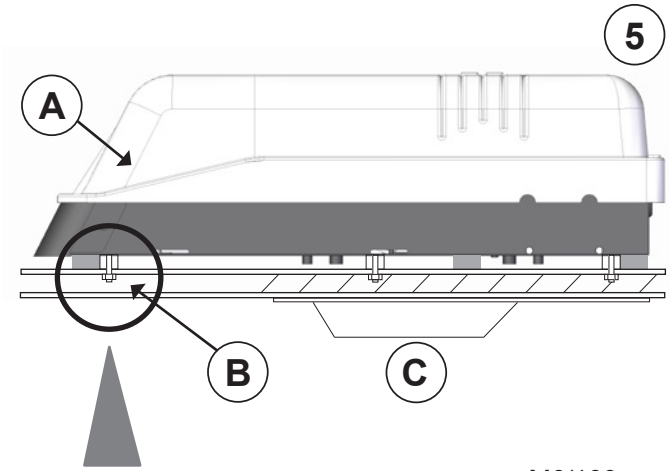
4 Conta ek yerini, gösterildiği şekilde kasa içinde yan ve ön contalar ile konumlandırınız.

a	Conta Eki
b	Yan Conta
c	Ön Conta

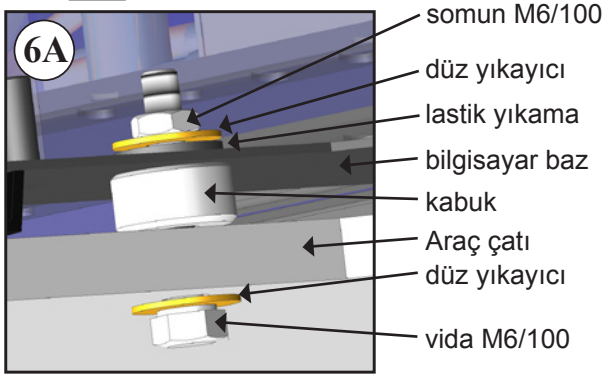


5 Kabloları, bu amaçla açılmış ve kapak kısmında bulunan yuva deliklerinden geçirin. (Şekil 1)Entegre Güç Ünitesini (A) 13 mm. Kılavuzlar (6), lastik pullar, vidalar (M6/100*40) (6) ve M6/100 somunlar ile konumlandırın.

⚠ **ÖNEMLİ: Ana ünite ile Kapak kısmı arasındaki conta sıkılığından, suyun içeri sızmasını önlemek açısından emin olunuz.**

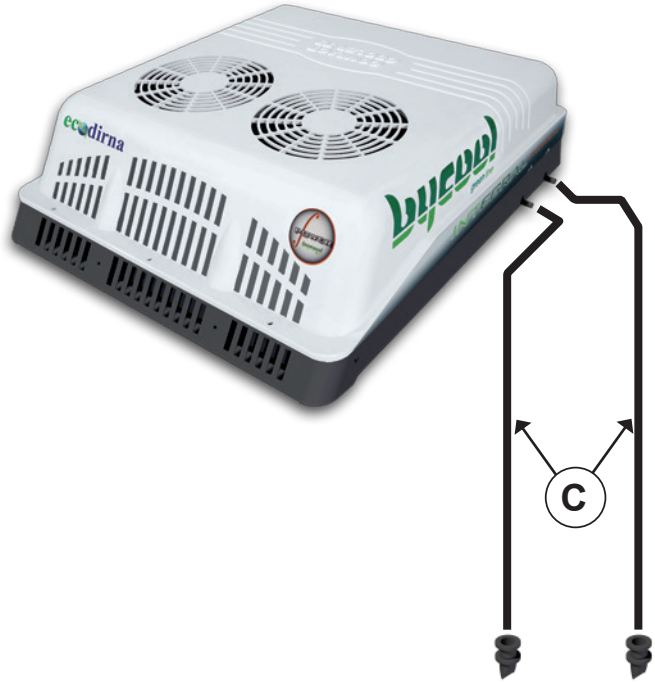


6A Suyun geçişini önlemek için lastik pulları yerleştiriniz.



6B Yuva deliklerini silikon ile kapatınız.

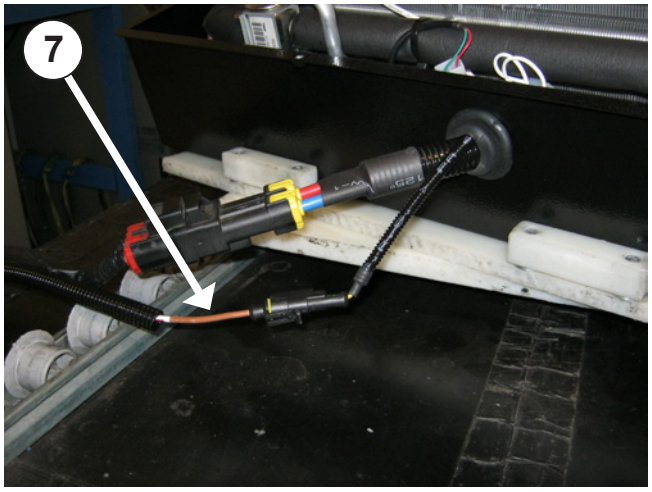
6C Gerekli uzunlukta PVC boruyu yerleştiriniz.

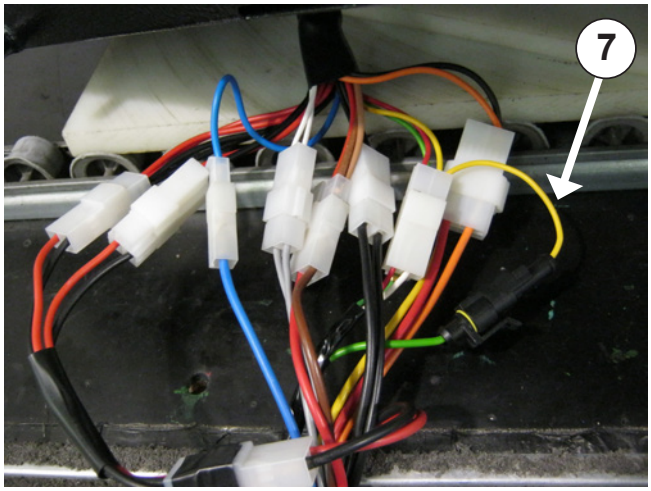


Çikiş kablolamasi

⚠ **Dikkat:** Çıkış kabloları, kamyonlar dışındaki tüm araçlara kurulmalıdır.

7 Çıkış kablolarını uygun olduğu şekilde aracın içine veya dışına konumlandırınız.



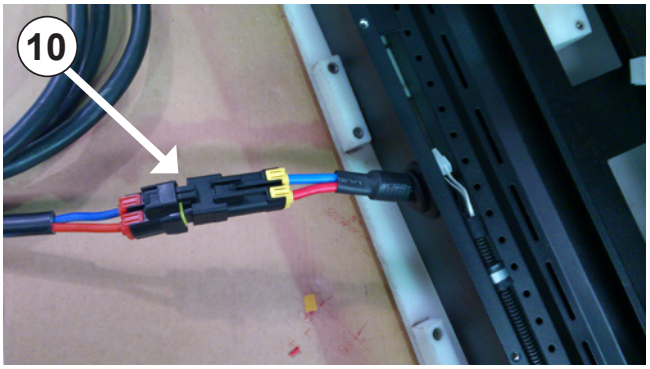


8 Diğer ucu, çalışmakta olan motorun (+) **kısmına bağlayınız**.

9 Kablo şebekesini Sayfa 5 C de görüldüğü gibi ön tarafa bağlayınız ve paketten çıkan vidalar ile sıkılaştırınız.

⚠ **ÖNEMLİ: Ön tarafı yerleştirmeden önce her bir araç için akım anahtarını doğru konuma getiriniz.**

10 Ünitenin arka tarafında bulunan Üst kısım güç kablosunu bağlayınız.

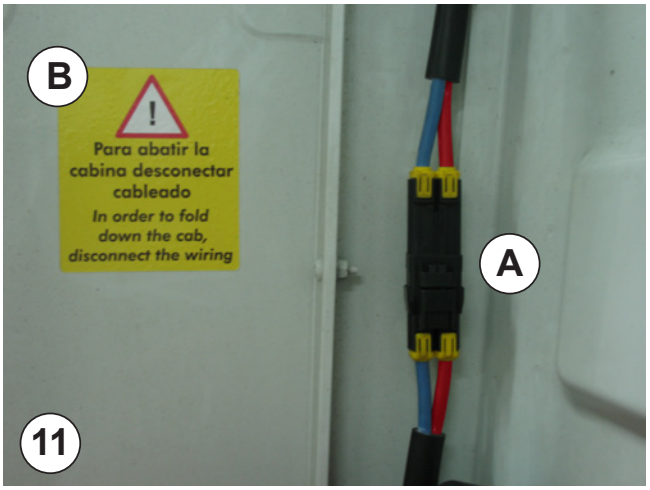


11 Alt kısım güç kablosunu (**A**), aküye bağlayınız ve kablo bağlantı sı risk işaretçilerini görünür bir yere yapıştırınız. (**B**)

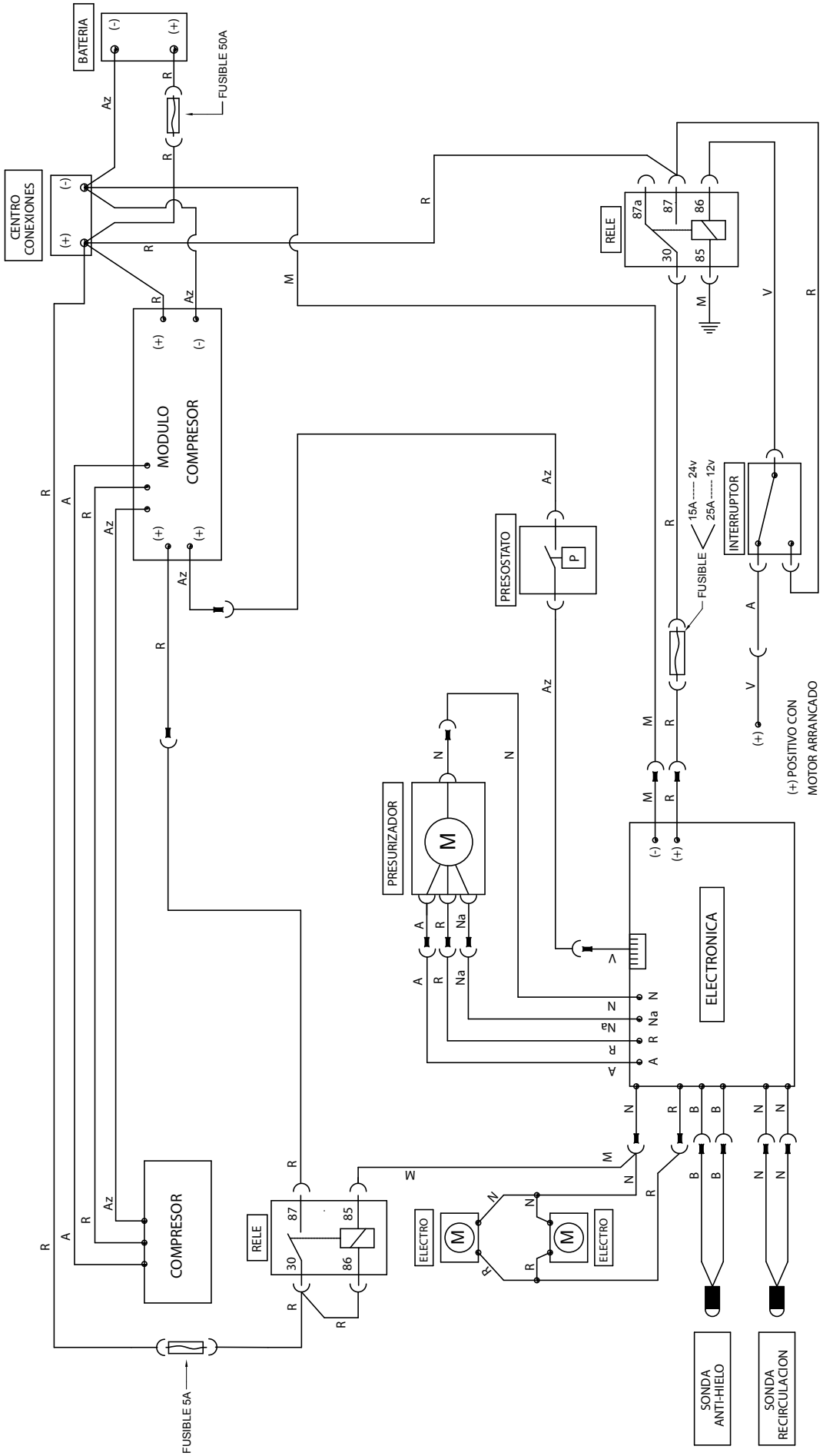
⚠ **ÖNEMLİ:** Kabloları bağlarken araç hareket ettiğinde oluşabilecek kırılmaları önlemek için uygun mesafe bırakınız.

⚠ **ÖNEMLİ:** Ünite içerisinde yer alan karmaşık elektronik düzenleyici sistem göz önüne alındığında akım bağlantısı doğrudan aracın aküsüne yapılmalıdır. (Bu mümkün değil ise lütfen dirna Sa ile temas kurunuz)

⚠ **ÖNEMLİ:** Başlatmadan önce lütfen Kullanma Kılavuzu (220AA21001) e göz atınız.



Elektrik şeması



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